



**EMERALD HILL/NISSHO RANCH MINOR SUBDIVISION
EMERALD HILL ROAD
BONSALL COMMUNITY PLANNING AREA
SAN DIEGO COUNTY, CALIFORNIA**

BIOLOGICAL LETTER REPORT

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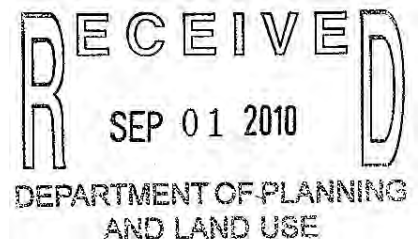
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PSBS #W206
15 July 2010

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Certified Wetland Delineation - Certificate #1697



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SUMMARY

Pacific Southwest Biological Services, Inc., (Pacific Southwest) conducted a biological assessment on the 19.39-acre (gross) acre site and associated improvements to the off-site site private road, Emerald Hill Road, in the unincorporated community of Bonsall, northwestern San Diego County, California. The assessment included a general biological assessment, wetland delineation, habitat assessment for the Arroyo Toad (*Bufo californicus*), and focused surveys for the Coastal California Gnatcatcher (*Poliophtila californica californica*) and Least Bell's Vireo (*Vireo bellii pusillus*). The assessment was performed to identify biological resources and sensitive species that are present and would be impacted by development or preserved by conservation of portions of the site as biological open space. The proposed project consists of a minor subdivision of the site into four residential parcels plus a designated remainder parcel.

This report addresses County staff comments contained in a November 17, 2008 and March 4, 2009 letters, a subsequent email and includes a redesign to provide a secondary emergency egress road and reduced project size due to Caltrans acquisition of the eastern part of the site. Also, a meeting with agency and County staff was held at Department of Planning and Land Use offices on 15 July 2010 and this issue of off-site mitigation, Migratory Bird Act Treaty and raptor nesting season avoidance between 15 January to 31 August was discussed.

The property includes non-jurisdictional drainages which flow easterly toward Mission Road; these non-jurisdictional areas would not be impacted by project implementation.

The survey identified five vegetation/habitat types on the site or in the adjacent areas: Urban/Developed, Orchards, Non-native Grassland, Diegan Coastal Sage Scrub, and Southern Cottonwood-Willow Riparian Forest (the latter, off-site only).

Because the site contains shrubs that could be used by nesting migratory birds protected under the federal Migratory Bird Treaty Act and the California Fish and Game Code, impacts could occur to such species if unsupervised clearing or construction activities take place on the site between 15 January and 31 August. These impacts would be reduced to a less than significant level if the recommended mitigation measure is made as a condition of project approval. As currently designed, the project would not result in impacts to other unique biological features and resources.

Diegan Sage Scrub vegetation on the site has been surveyed using approved protocols and found to represent un-occupied habitat. However, updated surveys for the Coastal California Gnat catcher will be required if the project proponent intends to mitigate for the habitat loss off-site unless occupied habitat is acquired as mitigation.

Introduction, Project Description, Location and Setting

A general biological assessment on the 19.39-acre parcel was performed by Pacific Southwest at the request of Kerry Garza of Touchstone Communities. The purpose of the survey was to document biological resources and/or any sensitive species occurring on the project site. This report summarizes the current biological conditions of the property, the results of the surveys, and includes an impact analysis of on-site impacts from the proposed project.

This report provides the project applicant, the resource agencies, and the public with current biological data to satisfy the review of the project under the California Environmental Quality Act (CEQA). It is anticipated that the information herein will be available for public review. This report conforms to the San Diego County Guidelines for Determining Significance and Survey, Report Format, Content and Mapping Requirements, Biological Resources (San Diego County 2006).

Prior to the field investigation, Pacific Southwest searched the California Department of Fish and Game's (CDFG) Natural Diversity Data Base (CNDDDB) for the USGS 7.5' Bonsall and Morro Hill, California quadrangles. This search revealed several federally- and state-listed species that have been reported within these quadrangles. Pacific Southwest reviewed a recent aerial photograph (via Google Earth; image date not indicated) for potential drainage patterns and vegetation types. Pacific Southwest also reviewed a soil survey map (Bowman 1973) of the project site and vicinity for soil types, including hydric soils. A report of recent surveys for sensitive riparian birds along the San Luis Rey River was also reviewed (Peterson *et al.* 2002).

The habitat assessment for the Arroyo Toad, a species listed as Endangered by the U. S. Fish and Wildlife Service, was conducted by biologist Ruben S. Ramirez, Jr. Detailed methodology and results of this assessment are included in a separate document (Attachment 1).

The initial visit to the site was made 31 May 2007 by biologist Claude G. Edwards as part of the survey for the Coastal California Gnatcatcher. During this and subsequent site visits by Pacific Southwest biologists, fauna and flora observed were recorded in the field as observations were made (Appendices 1 and 2). The surveys, conducted on foot, collectively covered all aspects of the parcel. Methods consisted of walking slowly over the site while watching and listening for wildlife, pausing frequently to observe and listen. "Pishing," a technique commonly used to attract the interest of passerines and draw them into view, was occasionally employed. Binoculars (8x32) were used to assist in the detection and identification of wildlife. Species presence was confirmed by visual observation and/or auditory detection, scats, bones, dens and burrows. Vegetation communities were mapped during the field survey on a 1"=200' scale topographic map of the site (Figure 3).

Mr. Edwards subsequently conducted focused surveys for the Coastal California Gnatcatcher, a species listed as Threatened by the U. S. Fish and Wildlife Service, and for the Least Bell's Vireo, a species listed as Endangered by the Service. Detailed methodologies and results for these surveys are included in separate documents (Attachments 2 and 3). Even though more than a year has passed since these surveys, subsequent surveys are not appropriate because of the small amount of sage scrub habitat on the site and transfer of riparian habitat (potential habitat for Least Bell's Vireo) to Caltrans.

Principal biologist R. Mitchel Beauchamp (Certified Wetland Delineation Certificate #1697) conducted a botanical survey for sensitive species and performed a wetland delineation on the property on 10 July 2007 and 1 September 2008, with a subsequent field visit on 8 February 2010. The schedule for the field visits is summarized below.

Table 1. Summary of Field Survey Conditions

Date	Personnel	Survey Type	Time	Conditions
31 May 07	Edwards	Gnatcatcher, Vireo	See Attachments 2 and 3	See Attachments 2 and 3
7 Jun 07	Edwards	Gnatcatcher, Vireo	See Attachments 2 and 3	See Attachments 2 and 3
13 Jun 07	Ramirez	Arroyo Toad	See Attachment 1	See Attachment 1
14 Jun 07	Edwards	Gnatcatcher, Vireo, General Biology	See Attachments 2 and 3	See Attachments 2 and 3
21 Jun 07	Edwards	Vireo	See Attachment 3	See Attachment 3
28 Jun 07	Edwards	Vireo	See Attachment 3	See Attachment 3
5 Jul 07	Edwards	Vireo	See Attachment 3	See Attachment 3
10 Jul 07	Beauchamp	Sensitive flora, Wetlands	0830-1230	
12 Jul 07	Edwards	Vireo	See Attachment 3	See Attachment 3
19 Jul 07	Edwards	Vireo	See Attachment 3	See Attachment 3
11 Sept 08	Beauchamp	Wetlands, Site Status Update; re-evaluate NNG	1130-1230	
8 Feb 10	Beauchamp	Field review for changes on site		

The property area is sufficiently small so that the entire area could be covered during each visit.

Scientific nomenclature used in this report is from the following standard references: Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986), as modified by Oberbauer (2005); vascular plants (Beauchamp 1986, Hickman 1993); vegetation communities (Holland 1986, Oberbauer 2005); wildlife habitats (Mayer *et al.* 1988); birds (American Ornithologists' Union 1998, 2009); and mammals (Jameson and Peeters 2004).

The proposed project is a minor subdivision of the 19.39-acre property into five residential parcels ranging from 2.0 to 8.13 net acres. Each created parcel would contain a single-family residence, septic leach field, landscaping and driveway. The project would also construct and/or expand an existing access road within the 40-foot wide private road and utility easement over the existing Emerald Hill Road route from the south. This private road would be improved to a 24-foot paved width. A proposed Open Space Easement for the preservation of steep hillsides would prevent grading of the easement area but does not protect against removal of native habitats

The map location of the site is in the southern ¼ of Section 30, Township 10 South, Range 3 West, of the San Bernardino Base and Meridian; USGS 7.5' Bonsall, California

quadrangle UTM [NAD 83]: 11-S: 477,913mE; 3,681,858mN (Figures 1 and 2). Access to the site from U.S. Interstate Highway 15 (I-15) is west on State Highway (SR) 76 (Mission Road), then west on North River Road and north on Emerald Hill Road to its terminus in the 600 block.

The site consists largely of a ridge and associated slopes that drop in elevation from north to south and west to east. Elevations range from approximately ~~434~~ 160 feet above mean sea level at the easterly boundary of the site to approximately 388 feet at the summit of the ridge in the center of the property. A single-family residence, and a trailer, both scheduled for removal, are on the property.

Topography on-site consists of moderate-to-steep slopes that are lower in the western and eastern portions. One seasonal drainage feature is situated at the west end of the site and three others are situated above and west of SR 76. Access to the site is from the north end of Emerald Hill Road.

Soils on the site are mapped as Fallbrook sandy loam, 15-30% slopes, eroded, Placentia sandy loam, 15-30%, Riverwash and Vista coarse sandy loam, 30-65% slopes (Bowman 1973). Surficial geology is mapped as Mesozoic granitic rocks – tonalite and diorite (Rogers 1965).

Surrounding land uses include the San Luis Rey River floodplain to the east, fruit orchards on slopes to the south and west, and buildings, parking lots, landscaping, and surface roads associated with commercial businesses to the north.

Habitats/Vegetation Communities

Five plant communities occur within the boundaries of the site or adjacent to the east: Urban/Developed, Orchards, Diegan Coastal Sage Scrub, Southern Cottonwood-Willow Riparian Forest, and Non-native Grassland (Figure 3). The vegetation/habitat types and acreage occurring on the property are discussed below, with appropriate Holland (1986) element codes (Table 2).

Urban/Developed Land (#12000) (0.02 acre)

A single-family residence, and a trailer, both scheduled for removal, are centrally located on the property. The developed parts of the SR 76 right-of-way are included in this land cover type. Lands along the southern two-thirds of the east side and southern third of the west side of Emerald Hill Road are residential and horse ranch uses under this category.

Orchards (#18100) (16.51 acres)

Fruit orchards dominate the majority of site on the higher terrain west of SR 76. Additional orchards are situated on off-site land to the north and south. The orchards consist primarily of persimmon (*Diospyros kaki*), citrus (*Citrus* spp.) and Avocado (*Persea americana*) trees with smaller amounts of other fruit-bearing trees. A patchy cover of low and sparse weedy annual and perennial plants is present beneath and around the trees. A variety of potted palms and other plants used for landscaping are being grown in the western-most portion of the site. This area occurs as a gully system. The orchards are traversed by a network of dirt roads. Approximately 1.09 acres of this habitat falls within the CalTrans ROW. Lands along the northern third of the east side and northern two-thirds of the west side of Emerald Hill Road are orchard under this category. Within the western portion of the orchard-mapped region is an area used for the growing of container nursery plants, largely palms.

Diegan Coastal Sage Scrub (#32500) (1.48 acres)

The Diegan Coastal Sage Scrub (DCSS) vegetation on the west side of SR 76 represents a regrowth in an area where this vegetation had previously been removed in association with previous agricultural activity, presumably vegetable cultivation. The northern portion remains mostly open, where the native plants characteristic of DCSS are intermixed with annual and perennial herbaceous plants dominated by exotics. The southern portion supports better quality DCSS vegetation. Sections of black irrigation tubing and pieces of white PVC pipe, as well as discarded lumber and miscellaneous refuse, are present at various scattered localities. In addition, remnants of previously cleared DCSS and orchard trees are piled along the dirt road to the west.

The better quality DCSS varies in height and density. Characteristic plants include California Sagebrush (*Artemisia californica*), California Buckwheat (*Eriogonum fasciculatum*), White Sage (*Salvia apiana*), and Black Sage (*Salvia mellifera*), with lesser amounts of Laurel Sumac (*Malosma laurina*), Deerweed (*Lotus scoparius*), and Bush Monkeyflower (*Mimulus aurantiacus*).

The small amount of DCSS present on the east side of SR 76 (offsite) appears to be on the fill slope created during the construction of the road decades previously.

Non-native Grassland (#42200) (1.39 acres)

Non-native Grassland (NNG) occurs in the northwest portions of the site. Non-native Grassland vegetation is characterized by Italian Thistle (*Carduus pycnocephalus*), Horsetweed (*Conyza canadensis*), Short-pod Mustard (*Hirschfeldia incana*), along with other weedy herbaceous plants, plus exotic annual grasses such as Red Brome (*Bromus madritensis* ssp. *rubens*) and Ripgut Grass (*Bromus diandrus*). A small number of taller and woody Mexican Elderberry (*Sambucus mexicanus*), Mule-fat (*Baccharis salicifolia*), California Buckwheat (*Eriogonum fasciculatum*), and Tree Tobacco (*Nicotiana glauca*) plants are interspersed.

Southern Cottonwood-Willow Riparian Forest (#61330) (off-site only)

Southern Cottonwood Willow Riparian Forest is a winter-deciduous riparian forest characterized by the presence of Fremont Cottonwood (*Populus fremontii*) and one or more species of willows (*Salix* spp.), often with an understory of shrubby plants. Other large trees, such as Coast Live Oak (*Quercus agrifolia*) and Western Sycamore (*Platanus racemosa*), can also be present.

This habitat exists outside of the project boundaries, to the east of existing Mission Road. The riparian habitat of the San Luis Rey River on the property consists of medium-to-large trees including Fremont Cottonwood, Arroyo Willow (*Salix lasiolepis*) and Goodding's Black Willow (*S. gooddingii*), and medium-to-large shrubs such as Mugwort (*Artemisia douglasiana*), Mule-fat (*Baccharis salicifolia*), and Poison-Oak (*Toxicodendron diversilobum*), and a variety of annual and perennial herbaceous plants. Giant Reed (*Arundo donax*), a large and invasive, bamboo-like grass, occurs in scattered patches throughout the floodplain, on both sides of the river channel. Several narrow dirt trails traverse the floodplain on the west side of the river.

Table 2. Habitat/Vegetation Communities

Habitat/ Vegetation Community	Existing	Impacts
Urban/ Developed	0.02	0.02
Orchard	16.51	16.51
Diegan Sage Scrub	1.48	1.48
Non-native Grassland	1.39	1.39
TOTAL	19.4	19.4

Flora

Appendix 1 lists the plants detected on the site during the field visits. Of the 95 species recorded, 52 species or (55%) are non-native. The highly disturbed nature of the operation has resulted in many weed, non-native species occurring on the site. The presence of scrub and riverine vegetation further diversified the native complement of the site flora.

Special Status Species - Plants

Appendix 3 lists 20 plant species either identified in the CNDDDB search or appearing in the Comprehensive List of Sensitive Species received in County correspondence (1 May 2007), their conservation status, typical habitat requirements, and potential for occurrence in the study area. The 2010 site visit did not encounter any additional plant taxa.

The County required directed surveys for the following plant species:

San Diego Thorn-mint (*Acanthomintha ilicifolia*)

California Adolphia (*Adolphia californica*)

San Diego Ambrosia (*Ambrosia pumila*)

Orcutt's Brodiaea (*Brodiaea orcuttii*)

Prostrate Spineflower (*Chorizanthe procumbens*)

Sticky Dudleya (*Dudleya viscida*)

Palmer's Goldenbush (*Ericameria palmeri* ssp. *palmeri*)

Spreading Navarretia (*Navarretia fossalis*)

None of the 20 species, including the eight species listed above, were observed on the site. See Appendix 3 for a list of potential special status species, their typical habitat conditions and reasons why these species are not likely to occur on the site.

Special Status Species - Animals

Appendix 2 lists the wildlife species detected during the field visits to the site. The field visits detected only the Turkey Vulture (in flight) from the site, although no nesting habitat for this species occurs on the site. Appendix 4 lists 58 wildlife species identified in the California Natural Diversity Data Base (CNDDDB) search or appearing in the Comprehensive List of Sensitive Species received in County correspondence (1 May 2007), their conservation status, typical habitat requirements, and potential for occurrence in the study area. The County required directed surveys for the following wildlife species:

Cooper's Hawk (*Accipiter cooperii*)

Sharp-shinned Hawk (*Accipiter striatus*)

Tricolored Blackbird (*Agelaius tricolor*)

Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)

Bell's Sage Sparrow (*Amphispiza belli belli*)

Golden Eagle (*Aquila chrysaetos*)

Long-Eared Owl (*Asio otus*)
 Burrowing Owl (*Athene cunicularia*)
 Arroyo Toad (*Bufo californicus*)
 Red-Shouldered Hawk (*Buteo lineatus*)
 Coastal Cactus Wren (*Campylorhynchus brunneicapillus couesi*)
 Turkey Vulture (*Cathartes aura*)
 Northern Harrier (*Circus cyaneus*)
 Southern Pacific (Southwestern) Pond Turtle (*Clemmys marmorata pallida*)
 Belding's Orange-Throated Whiptail (*Aspidoscelis hyperythrus Beldingi*)
 Yellow-Billed Cuckoo (*Coccyzus americanus*)
 San Diego Banded Gecko (*Coleonyx variegatus abbotti*)
 White-Tailed Kite (*Elanus leucurus*)
 Southwestern Willow Flycatcher (*Empidonax traillii extimus*)
 Arroyo Chub (*Gila orcutti*)
 Yellow-Breasted Chat (*Icteria virens*)
 Loggerhead Shrike (*Lanius ludovicianus*)
 Hermes Copper (*Lycaena hermes*)
 Coastal California Gnatcatcher (*Polioptila californica californica*)
 California Red-Legged Frog (*Rana aurora draytonii*)
 Two-Striped Garter Snake (*Thamnophis hammondi*)
 Least Bell's Vireo (*Vireo bellii pusillus*)

Directed surveys were conducted for these species during the various field visits (see Arroyo Toad Assessment, Attachment 1); none were observed. Of the 58 species reviewed, none were observed on the property. All but nine have a low probability of occurrence on the site because of site conditions. The remaining nine species are of moderate or high probability of occurrence (see following).

The Cooper's Hawk, a year-round resident, would likely forage over the site. The Sharp-shinned Hawk, a migrant and winter visitor, would likely forage over the site in passing and during the winter. The Red-Shouldered Hawk would likely forage over the site year-round. The Turkey Vulture (nesting areas of prime concern: observed from site, but no appropriate nesting habitat), Northern Harrier, and White-Tailed Kite undoubtedly forages over the property; the site does not contain Turkey Vulture nesting habitat, although Northern Harrier and White-tailed Kite could nest in riparian areas adjacent to the site. The Belding's Orange-Throated Whiptail probably occurs in the DCSS on the site. The Yellow-Breasted Chat may occasionally appear in the riparian habitat near the site. The Loggerhead Shrike could forage through the site, but has not been observed on the site. There is little or no nesting habitat for any of these nine species.

Shrubs and trees occur on the site that could serve as nesting sites for native birds protected by the Migratory Bird Treaty Act and California Fish and Game Code (see discussion under impacts and mitigation measures).

Jurisdictional Wetlands and Waterways

The site includes a seasonal drainage feature at its west end and three others above and west of SR 76, as well as the main stem of the San Luis Rey River. This river's watershed drainage involves about one-fifth of the area of San Diego County.

The main stem of the San Luis Rey River is a second-order stream throughout the reach within the project site. The stream is channelized by a small earthen embankment as it transitions from a western to a southern direction, possibly placed there to protect the nearby roadway. At the time of the survey there was not surface flow in the channel. The river valley has also been the site of Giant Reed (aka *Arundo*) removal program by the Mission Resource Conservation District. An area of removal Giant Reed and replanting with native species occurs along the edge of the channel within the property limits.

Jurisdictional Drainage Delineation

Local Site Conditions

The on-site drainage systems were examined and no flowing water was observed on-site at the time of the July, September 2007, or subsequent surveys. The off-site San Luis Rey River drainage is indicated on the USGS 7.5' Bonsall, California quadrangle as an intermittent, blue-line stream. The other incised features on the project site have no such designation. Such a mapping convention, however, has no relevance as far as delineation of jurisdiction is concerned. No standard criteria exist for such a designation.

Soils

The National Resources Conservation Service classifies the soils of California in the *National Hydric Soils List by State* (2007). Fallbrook sandy loam, Placentia sandy loam, and Vista coarse sandy loam found on the site (Bowman 1973) are not classified as hydric soils by the National Resources Conservation Service. However, Riverwash is associated with the main stem of the San Luis Rey River and during flows, especially following rainfall episodes, may reveal saturation, an indication of hydric soils, in the drainage. Therefore, the hydric soils criterion is met on the site, within the area saturated, during flows within the channel of the San Luis Rey River. Runoff from irrigation of the orchards on the site is not occurring due to the use of drip irrigation. Soils of the three eastern and single western upland incised features have no hydric soils.

Hydrology

Bed and bank features occurring along the San Luis Rey River indicate that storm flow hydrology exists. The hydrology criterion is met on the river. No bed and bank features occur in the four upland incised features of the site.

Vegetation

No hydric vegetation occurs in the four upland incised features of the site.

Conclusion of Jurisdictional Delineation

Wetland Waters of the U. S. Delineation

In order to be considered a wetland, an area must exhibit **all three** of the wetland parameters identified per the evaluation criteria in the Corps' 1987 Manual (Environmental Laboratory 1987). The gully systems on the property lack bed and bank, vegetation and hydric soil characters necessary to be included in this category.

The three eastern and single western incised features have poorly-defined bed and bank features with no vegetation or soil characteristic that would make them jurisdictional. However, under the *Rapanos vs. United States*, the Corps of Engineers and Environmental

Protection Agency Instructional Guidebook indicates there is no Significant Nexus of these upland features with the San Luis Rey River by virtue of the lack of presence of the Endangered Arroyo Toad or vegetation connectivity. These four drainage features, therefore, are not under federal Corps jurisdiction.

Non-Wetland Waters of the U. S. Delineation

In order to be considered as Non-wetland Waters of the United States, an area must exhibit **one of three** of the wetland parameters identified per the evaluation criteria in the Corps' 1987 Manual (Environmental Laboratory 1987). The four gully systems on the property lack bed and bank, vegetation and hydric soil characteristics and cannot be included in this category.

CDFG (1602) Jurisdictional Delineation

As mentioned above, the gully systems on the property lack bed and bank, vegetation and hydric soil characters to be include in this category.

County of San Diego Resource Protection Ordinance (RPO)

The four incised features on the site do not meet the criteria of the County of San Diego Resource Protection Ordinance, Section (q), (1) and, furthermore, do not qualify under the provisions of Section (2) (aa) (i)- (iv).

The four upland incised features, as discussed above, lack sufficient watershed drainage to qualify under the revised criteria, as well as the prior criteria due to lack of bed and bank, hydrophytic vegetation and wetland soil characteristics. Figure 3 indicates the location and extent of the drainages.

The drainage features on the site and associated with the off-site road are discussed below.

Northwest gully - This feature lacks bed and bank, hydrophytic vegetation and wetland soil characteristics that would place it in any of the federal, or state jurisdictional categories. With respect to RPO, this feature is not a wetland because, it does not support a predominance of hydrophytes, is not predominantly un-drained hydric soil. The site is dominated by Short-Pod Mustard (*Hirschfeldia incana*) a plant not associated with wetland situations. It is part of the orchard operation that has been abandoned in the western portion of the site.

Northeast gully - This feature lacks bed and bank, hydrophytic vegetation and wetland soil characteristics that would place it in any of the federal, state or County jurisdictional categories. With respect to RPO, this feature is not a wetland because, it does not support a predominance of hydrophytes, is not predominantly un-drained hydric soil. It's formation appears to be due to focus sheet flows in the past. A road which runs along the upper and northern portion of the feature may have also focused some flows in the recent past. It is minor a gully that initiates at the top of the property and, therefore, has a very limited watershed. Irrigation run off in the past may have been the source of erosion that generated the feature. The feature is included in the Diegan Coastal Sage Scrub category and lies within the Caltrans-easement of the site.

East-central gully - This feature lacks bed and bank, hydrophytic vegetation and wetland soil characteristics that would place it in any of the federal, state or County jurisdictional categories. With respect to RPO, this feature is not a wetland because, it does not support a predominance of

hydrophytes, is not predominantly un-drained hydric soil. It is a minor gully that initiates along the top ridgeline of the property and, therefore, has a very limited watershed. Irrigation run off in the past may have been the source of erosion that generated the feature. The feature is included in the Diegan Coastal Sage Scrub category and lies within the Caltrans-involved portion of the site.

Southeast gully - This feature lacks bed and bank, hydrophytic vegetation and wetland soil characteristics that would place it in any of the federal, state or County jurisdictional categories. It is minor a gully that initiates along the top ridgeline of the property and, therefore, has a very limited watershed. Orchard irrigation run-off in the past may have been the most recent source of erosion that generated the feature since fruit tree plantings occur up to the edge of the feature. With respect to RPO, this feature is not a wetland because, it does not support a predominance of hydrophytes, is not predominantly un-drained hydric soil. The feature is included in the Diegan Coastal Sage Scrub category and lies within the Caltrans-involved portion of the site.

Emerald Hill Road-North River Road Intersection Wetland - This off-site feature at the northwestern corner of this intersection coincides with Wetland-waters of the United States, Fish and Game Stream and County of San Diego Resource Protection Ordinance Wetland due to the presence of a defined bed and bank, a predominance of wetland vegetation and wetland soils.

Other Unique Biological Features/Resources

There are no other unique biological features/resources on the property.

Significance of Project Impacts and Proposed Mitigation

Vegetation/Plant Communities Impacts

Impacts resulting from project implementation to Vegetation/Plant Communities are shown in Table 3. Among on-site plant communities/plant-covers, the project would result in impacts to approximately 0.02 acre of Urban/Developed habitat, 16.51 acres of Orchard, 1.48 acre of Diegan Coastal Sage Scrub, and 1.39 acres of Non-native Grassland.

Table 3. Habitat/Vegetation Communities and Impacts (Areas in Acres) [Revised]

Habitat/ Vegetation Community	Existing	Impacts	Offsite Impacts
Urban/ Developed	0.02	0.02	0.0
Orchard	16.51	16.51	0.0
Diegan Sage Scrub	1.48	1.48	0.0
Non-native Grassland	1.39	1.39	0.0
TOTAL	19.4	19.4	0.0

1. Urban Developed Lands and Orchards

Onsite, the project would impact approximately 0.02 acre of Urban/Developed lands and 16.51 acres of Orchards. Because of the expansion of Emerald Hill Road from North River Road to the project site to a 24-foot paved width, a minor amount of associated orchard-related habitat would be impacted. Because of their low biological value, these impacts are considered less than significant under CEQA and no mitigation measures are recommended or necessary.

2. Diegan Coastal Sage Scrub
Implementation of the project would impact approximately 1.48 acres of Diegan Coastal Sage Scrub. Any impact to DCSS is considered significant under CEQA because of its historical losses. However, this impact would be reduced to a less than significant level if the proposed mitigation measure (M-BIO 1) is implemented as a condition of approval.
3. Non-native Grassland
As presently designed, the project would result in impacts to approximately 1.39 acres of Non-native Grassland. Because of the declining nature of this vegetation and its function as a raptor foraging habitat, any impact to this habitat is considered a significant impact under CEQA, unless mitigated to a less than significant level by making the proposed mitigation measure (M-BIO 2) a condition of project approval.
4. Special Status Species Impacts
Based on a review of the on-site habitats and a list of special status species recorded for the general project vicinity, and appropriate federal protocol surveys, no special status species, except for migratory birds protected by the Migratory Bird Treaty Act, have been identified on the site and likely impacted by the project. Because no impacts would occur to special status species, other than nesting migratory birds, no mitigation measures are proposed or warranted.
5. Nesting Migratory Bird Impacts
The site contains shrubs and trees that could be used by nesting migratory birds protected by the Migratory Bird Treaty Act. Nesting migratory birds are protected under the Migratory Bird Treaty Act of 1918 and the California Fish and Game Code. If clearing or construction takes place during the spring/summer months (1 February through 31 August), nesting birds may be impacted by direct impacts to nesting sites or indirectly by noise, causing abandonment of nesting sites (15 January – 31 August for nesting raptors). This is considered a significant impact under CEQA unless reduced to a less-than-significant level by application of the recommended mitigation measure (M-BIO 3).
6. Jurisdictional Wetlands and Waterways
Implementation of the proposed minor subdivision would not result in impacts to U. S. Army Corps of Engineers, California Fish and Game or County of San Diego jurisdictional areas, either to on-site minor drainage features. The minor drainages on site are classified as non-jurisdictional. Therefore, there would be no impacts to jurisdictional areas under CEQA and no mitigation measures are recommended or warranted.
7. Other Unique Biological Features/Resources
The site does not contain any unique biological features or resources that would be impacted by implementation of the project. Therefore, no additional mitigation measures are recommended or warranted.

Proposed Mitigation Measures

M-BIO 1: Mitigation for Impacts to Diegan Coastal Sage Scrub

Prior to approval of the parcel map, the applicant shall obtain land and/or credits equal to 1.48 acres of Diegan Coastal Sage Scrub occupied by the Coastal California Gnatcatcher

in a mitigation bank to the satisfaction of the Director of the Department of Planning and Land Use. If un-occupied habitat is proposed for mitigation, an updated protocol survey of the project site will be required to confirm the absence of this Threatened bird species on the project site project site. Credits are being considered at a new developing land bank, Red Mountain in the Fallbrook-Rainbow area as well as The Groves site at Bonsall, both sites having or intending to have credits for occupied habitat.

M-BIO 2: Mitigation for Impacts to Non-Native Grassland

Prior to approval of the parcel map, the applicant shall show evidence that he has acquired mitigation credits and/or land equivalent to 0.7 acre of Non-native Grassland Credits (0.5: 1 ratio) in a mitigation bank to the satisfaction of the Director of the Department of Planning and Land Use. Grassland credits are also being acquired off-site and are being considered at the Red Mountain and The Groves sites.

M-BIO 3: Mitigation for Impacts to Nesting Migratory Birds including Raptors

Impacts to nesting migratory birds can be mitigated by conditioning the tentative parcel map to require a pre-construction survey of the proposed project area for nesting birds, if grubbing, clearing, or construction occurs from 15 January through 31 August. Any active nests located would be flagged and that area protected from impacts until the birds have fledged.

Table 4. Summary of Existing On-site Vegetation Types, Project Impacts, Mitigation Ratios, and Mitigation Required (Areas in Acres) [Revised]

Habitat/ Vegetation Community	Existing	Impacts	Offsite Impacts	Mitigation Ratio	Mitigation Required	Preserved On-site	Impact Neutral	Off-site Mitigation
Urban/ Developed	0.02	0.02	0	N. A.	N. A.	0	0	N. A.
Orchard	16.51	16.51	0	N. A.	N. A.	0	0	N. A.
Diegan Sage Scrub	1.48	1.48	0	1:1	1.48	0	0	1.48
Non-native Grassland	1.39	1.39	0	0.5:1	0.70	0	0	0.70
TOTAL	19.4	19.4	0					2.18

Cumulative Impact Analysis

The following analysis was performed to determine if the proposed project, a minor residential subdivision of 19.39 acres, would not result in cumulatively considerable impacts when viewed in connection with the effects of past projects, other current projects, and probable future projects in conformance with Section 15130(a) of the State CEQA Guidelines.

For the purposes of this analysis, the geographic limits of the cumulative impact study area were limited to projects within the Bonsall Community Plan and generally within approximately one mile from the project site. This analysis area was chosen because it included areas which would have similar habitats and special status species that occur on the project site.

A project list was obtained using past and current project maps and major use permits for the Bonsall Community Plan and reviewing discretionary projects plotted on the maps. After identifying discretionary projects, the files were reviewed to determine if they would also have impacts on Diegan Sage Scrub, Riparian Forest, or other sensitive biological resources that the proposed project would impact. A list of projects is included as Table 5. There was not always adequate information in the project files to determine what impacts would result from a specific proposed project and/or what the proposed mitigation for those impacts are required. Table 5

indicates that approximately 246.12 acres of Agriculture would be impacted, as well as 1.23 acres of Eucalyptus Woodland, 2.33 acres of Disturbed Habitat, 3.28 acres of Urban Developed Habitat, 22.32 acres of Diegan Coastal Sage Scrub, and 9.2 acres of Non-native Grassland. Of the habitats also impacted by the proposed project, only the 1.39 acres of Non-native Grassland would be 15% of the cumulative 9.2 acres of this habitat; the remaining habitat impacted by project implemented would be a minor component of the cumulative losses.

Table 5. Cumulative Impacts to Various Vegetation/Plant Community Types in Bonsall Area (¹Diegan Coastal Sage Scrub, ²Non-native Grassland; ³Riparian Forest and ⁴Coast Live Oak Woodland)

Project Type	Project Number	Project Name	Size	Agricul	Euc Wldd	Disturb	Urban/ Dev	DCSS ¹	NNG ²	SCLOR F ³	CLOW ⁴
MUP	7-5-54	Spring Nextel	2.08				2.08				
MUP	05-051	Telecom									
MUP	06-062	Telecom	1.00				1.00				
TM	4908	Brook Hills	281.30					2.80			
TM	4976	Leeds & Strauss									
TM	5012	[Valle del Sol]	20.44	29.44							
TM	5421	TM 82 Assoc.	52.96								
TM	4730 RPL ² TE	Hidden Hills									
TM	5037RPL ² TE	Dentro de Lomas	139.60	139.60							
TPM	20173	Shamrock	10.14	10.14							
TPM	20365	M. Malek	12.07	12.07							
TPM	20516	Stehly & Berger	11.23								
TPM	20632	Bautista	2.33			2.33					
TPM	20718	Avojo		0.20					6.70		
TPM	20823	Villa de los Capillos	6.92	6.92							
TPM	20849	Kendall	5.12	5.12							
TPM	20851	Crook/Shamrock		26.10	1.23			18.04	1.11		5.72
TPM	20908	Palomar Dr TPM	10.25								
TPM	21057	<i><u>Emerald Hill</u></i>	<i><u>19.39</u></i>	<i><u>16.51</u></i>	<i><u>=</u></i>	<i><u>=</u></i>	<i><u>0.20</u></i>	<i><u>1.48</u></i>	<i><u>1.39</u></i>	<i><u>0.00</u></i>	
TOTAL			<u>574.83</u>	<u>246.10</u>			<u>3.28</u>	<u>22.32</u>	<u>9.20</u>	<u>0.00</u>	<u>5.72</u>

In evaluating cumulative biological impacts the following questions were addressed for the project along with other existing and proposed projects (see Table 5).

1. Would the project have a substantial adverse affect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No. The site contains approximately 1.48 acres of Diegan Coastal Sage Scrub, the typical habitat for the federally Threatened Coastal California Gnatcatcher, although surveys following federal protocol did not detect the species. Thus the project would not result in impacts to species addressed in this issue.

2. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and

Wildlife Service?

No. As indicated above, the site contains approximately 1.48 acres of Diegan Coastal Sage Scrub, the typical habitat for the federally Threatened Coastal California Gnatcatcher, although surveys following federal protocol did not detect the species. Additionally, the remaining sage scrub habitat is somewhat disturbed, small in size and isolated from similar habitat in the immediate area. Thus the project would result in minor impacts to sensitive habitats addressed in this issue.

3. Would the project have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No. The site contains no riparian habitat that would not be impacted by the project; thus, there would be no substantial adverse effect on federally protected wetlands.

4. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No. The site is adjacent San Luis Rey River, a regional wildlife corridor, but the the corridor would be disconnected from the project site by a major expansion of Mission Road between the project site and the San Luis Rey River. Thus, the project ownership is separated from the San Luis Rey River by Mission Road, a major highway, wildlife movement between the uplands and the river is probably very limited.

5. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No. The project would not conflict with any local policies or ordinances protecting biological resources.

6. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No. The project is within the draft North County MSCP Subregional Plan area, which has not yet been adopted. The areas proposed for development on the site are not within a proposed Pre-Approved Mitigation Area.

7. Does the project have impacts that are individually limited, but cumulatively considerable?

No. Non-native Grassland: The proposed project would impact approximately 1.39 acres of Non-native Grassland. Other projects in the general project vicinity have

involved 9.2 acres; this is considered a moderate component of the cumulative impact.

Yes. Coastal Sage Scrub: Tables 2 and 3 indicates that only 1.48 acre Coastal Sage Scrub within the project boundaries would be directly impacted by the project; therefore the project would not contribute to cumulatively considerable impacts to this habitat in the project vicinity.

In summary, the project will not contribute to significant cumulative biological impacts to sensitive vegetation in the region. Nonetheless, the project proposes to retain the sensitive vegetation through onsite conservation. Additionally, impacts for current and foreseeable projects will be required to mitigate in a manner that reduces their impacts so that they do not contribute to cumulative significant impacts.

Conclusion

Implementation of the project would result in significant impacts under CEQA to Diegan Sage Scrub, Non-native Grassland and Southern Cottonwood Willow Riparian Forest habitats, all sensitive vegetation on the project site. If the proposed mitigation measures are implemented as conditions of approval, these impacts would be reduced to less than significant levels. The project result in significant impacts to nesting migratory birds but these impacts would be reduced to a less than significant level if the recommended mitigation measure is made as a condition of project approval. As currently designed, the project would not result in impacts to federal, state and county-defined jurisdictional areas and wetlands or other unique biological features and resources.

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Appendix 1. Floral Checklist

Appendix 2. Faunal Checklist

Appendix 3. Sensitive Plants Reported from USGS 7.5' Bonsall and Morro Hill, California, quadrangles (CNDDDB), and including those in Comprehensive List of Sensitive Species from County letter 1 May 2007

Appendix 4. Sensitive Animals Reported from USGS 7.5' Bonsall and Morro Hill, California, quadrangles (CNDDDB), and including those in Comprehensive List of Sensitive Species from County letter 1 May 2007

Attachment 1. Habitat Assessment for Arroyo Toad

Attachment 2. Coastal California Gnatcatcher Survey

Attachment 3. Least Bell's Vireo Survey

Attachment A. Site Photographs

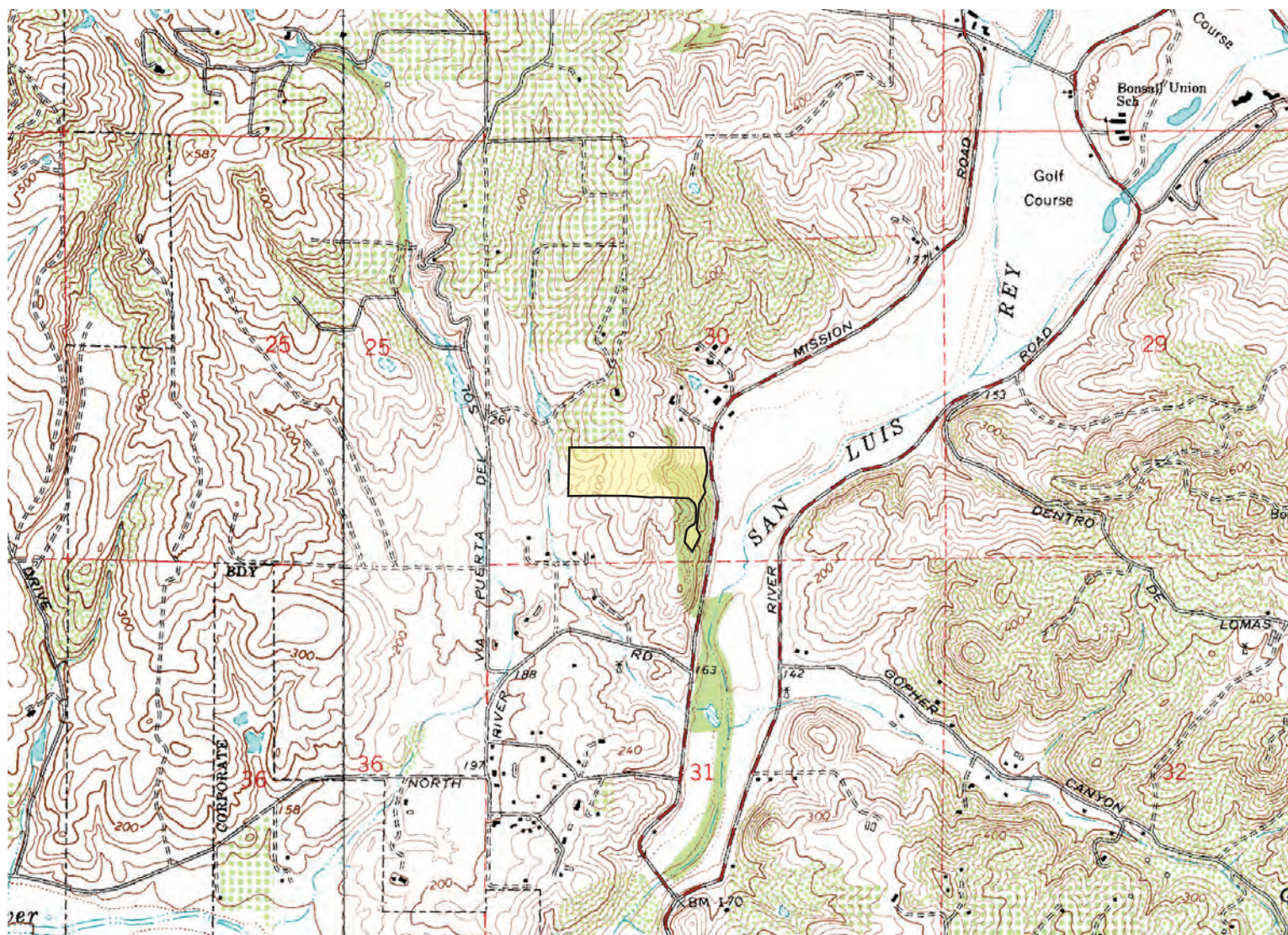
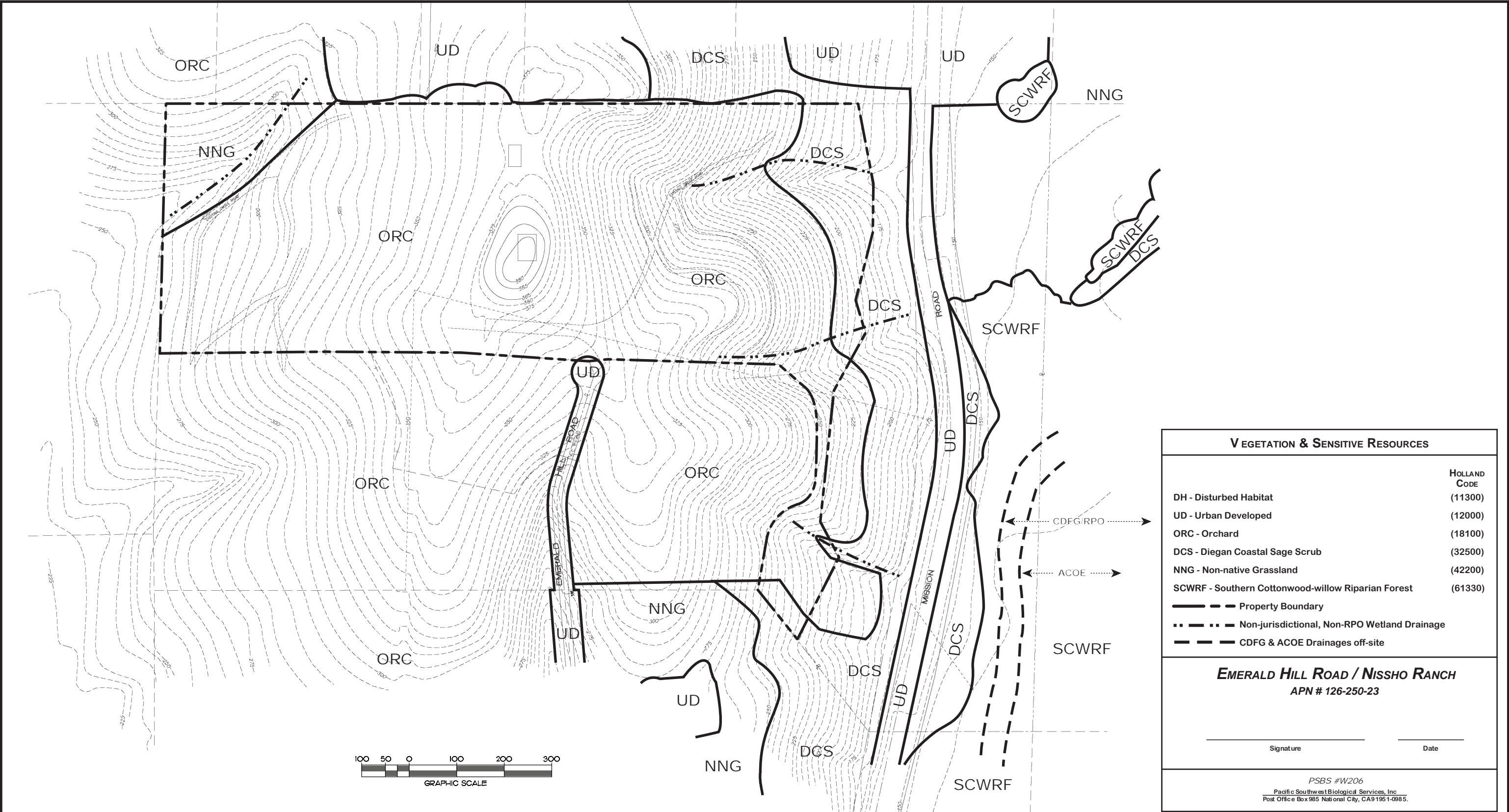


Figure 2. Project Location, Emerald Hill, Bonsall Community Planning Area,
San Diego County
USGS 7.5' Bonsall, CA Quadrangle



1" = 2,000'



PROJECT INFORMATION
VEGETATION & SENSITIVE RESOURCES
EMERALD HILL ROAD, BONSAI, SAN DIEGO COUNTY, CALIFORNIA

Appendix 1. Floral Checklist of Species Observed - Emerald Hill Road Site

GYMNOSPERMS

Cupressaceae - Cypress Family

- **Cupressus sempervirens* L. Italian Cypress

DICOTYLEDONS

Aizoaceae - Carpet-weed Family

- **Carpobrotus edulis* (Molina) N.E. Brit. Hottentot-fig

Amaranthaceae - Amaranthus Family

- **Amaranthus blitoides* S. Wats. Prostrate Amaranth
- **Atriplex semibaccata* R. Br.
- **Chenopodium album* L. Lamb's Quarters
- **Chenopodium ambrosioides* L. Mexican Tea
- Chenopodium californicum* (Wats.) Wats. California Goosefoot
- **Chenopodium murale* L. Nettle-leaf Goosefoot
- **Salsola tragus* L. Russian Thistle

Apiaceae - Carrot Family

- **Conium maculatum* L. Common Poison Hemlock
- **Foeniculum vulgare* Mill. Fennel

Apocynaceae - Dogbane Family

- **Nerium oleander* L. Oleander
- **Vinca major* L. Greater Periwinkle

Asteraceae - Sunflower Family

- Acourtia microcephala* DC. Sacapellote
- Ambrosia acanthicarpa* Hook. Annual Bur-Sage
- Ambrosia psilostachya* DC. Western Ragweed
- Artemisia californica* Less. California Sagebrush
- Baccharis pilularis* DC. Coyote Brush
- **Bidens pilosa* L
- **Carduus pycnocephalus* L. Italian Thistle
- **Centaurea melitensis* L. Tocalote
- **Conyza bonariensis* (L.) Cronq. Flax-leaf Fleabane
- **Conyza canadensis* (L.) Cronq. Horseweed
- **Conyza florida*
- Deinandra fasciculata* (DC.) E. Greene Fascicled Tarplant
- Eriophyllum confertiflorum* (DC.) Gray var. *confertiflorum* Golden-yarrow
- Gnaphalium bicolor* Bioletti Bicolor Cudweed
- Gnaphalium californicum* DC. California Everlasting
- Heterotheca grandiflora* Nutt. Telegraph Weed
- Isocoma menziesii* (Hook. & Arn.) Nesom var. *vernonioides* (Nutt.) Nesom Coast Goldenbush
- **Lactuca serriola* L. Prickly Lettuce
- **Picris ehioides* L. Bristly Ox-tongue
- **Sonchus asper* (L.) Hill Prickly Sow Thistle
- **Sonchus oleraceus* L. Common Sow Thistle
- Stephanomeria virgata* Benth. Virgate Wreath-plant

Brassicaceae - Mustard Family

- **Brassica nigra* (L.) Koch Black Mustard
- **Hirschfeldia incana* (L.) Lagr.-Fossat Short-pod Mustard
- **Raphanus sativus* L. Wild Radish
- **Sisymbrium altissimum* L. Tumble Mustard
- **Sisymbrium irio* L. London Rocket

Appendix 1. Floral Checklist of Species Observed - Emerald Hill Road Site (continued)**Cactaceae** - Cactus Family

- **Opuntia ficus-indica* (L.) Miller Indian-fig
- Opuntia littoralis* (Engelm.) Ckll. var. *littoralis* Coast Prickly-Pear

Convolvulaceae - Morning-Glory Family

- Calystegia macrostegia* (Greene) Brumm. Wild Morning-glory
- **Convolvulus arvensis* L. Bindweed
- Cuscuta californica* Hook & Arn. var. *californica* Witch's Hair

Cucurbitaceae - Gourd Family

- Cucurbita foetidissima* Kunth Calabazilla
- Marah macrocarpus* (Greene) Greene var. *macrocarpus* Wild-cucumber

Ebenaceae - Ebony Family

- **Diospyros* sp. Persimmon

Euphorbiaceae - Spurge Family

- **Chamaesyce maculata* (L.) Small Spotted Spurge
- Chamaesyce polycarpa* (Benth.) Millsp. Small-seed Sandmat
- Croton californicus* Muell. Arg. California Croton
- Croton setigerus* (Hook.) Doveweed
- Euphorbia crenulata* Engelm. Chinese Caps
- **Ricinus communis* L. Castor-bean

Fabaceae - Legume Family

- Lotus scoparius* (Nutt.) Ottley var. *scoparius* Coast Deerweed
- **Melilotus alba* Desr. White Sweetclover

Geraniaceae - Geranium Family

- **Erodium botrys* (Cav.) Bertol. Long-beak Filaree

Heliotropaceae - Heliotrope Family

- Heliotropium curassavicum* L. Salt Heliotrope

Hydrophyllaceae - Waterleaf Family

- Phacelia cicutaria* Greene var. *hispida* (Gray) Howell Caterpillar Phacelia

Juglandaceae - Walnut Family

- **Carya illinoensis* (Wagenh.) C.Koch Pecan

Lamiaceae - Mint Family

- **Marrubium vulgare* L. Horehound
- Salvia apiana* Jeps. White Sage
- Salvia mellifera* Greene Black Sage

Malvaceae - Mallow Family

- **Malva parviflora* L. Cheeseweed

Nyctaginaceae - Four-O'Clock Family

- Mirabilis laevis* (Benth.) Curran var. *crassifolia* (Choisy) Spellenb. Coastal Wishbone Plant

Onagraceae - Evening-Primrose Family

- Epilobium ciliatum*

Appendix 1. Floral Checklist of Species Observed - Emerald Hill Road Site (continued)**Oxalidaceae** - Wood-Sorrel Family

**Oxalis corniculata* L. Yellow Wood-sorrel

Plantaginaceae - Plantain Family

Antirrhinum nuttallianum Benth. ssp. *nuttallianum* Nuttall's Snapdragon

Polygonaceae - Buckwheat Family

Eriogonum fasciculatum Benth. var. *fasciculatum* California Buckwheat

**Polygonum arenastrum* Bor. Common Knotweed

**Rumex crispus* L. Curly Dock

Primulaceae – Primrose Family

**Anagalis arvensis* L. Scarlet Pimpernel

Rhamnaceae - Buckthorn Family

Rhamnus crocea Torr. & Gray Spiny Redberry

Rosaceae - Rose Family

**Crataegus* sp. Crab-apple.

Heteromeles arbutifolia (Ait.) M. Roem. Toyon

**Prunus persica* L. Peach

Rubus ursinus Cham. & Schlecht. California Blackberry

Scrophulariaceae - Figwort Family

Antirrhinum nuttallianum (Benth.) ssp. *nuttallianum* Nuttall's Snapdragon

Mimulus aurantiacus Curtis var. *puniceus* (Nutt.) Thomp. Coast Monkeyflower

Solanaceae - Nightshade Family

Datura wrightii Regel Western Jimsonweed

**Nicotiana glauca* Graham Tree Tobacco

**Physalis*

Solanum sp. Nightshade

Urticaceae - Nettle Family

**Urtica urens* L. Dwarf Nettle

MONOCOTYLEDONS**Agavaceae** - Agave Family

Yucca schidigera Ortgies Mojave Yucca

Arecaceae - Palm Family

**Washingtonia robusta* Wendle. Mexican Fan Palm

Cyperaceae - Sedge Family

Cyperus eragrostis Lam. Tall Flatsedge

Poaceae - Grass Family

**Avena* sp. Wild Oat

**Bromus diandrus* Roth Ripgut Grass

**Bromus hordeaceus* L. Soft Chess

**Bromus madritensis* L. ssp. *rubens* (L.) Husnot Red Brome

**Cynodon dactylon* (L.) Pers. Bermuda Grass

Leymus condensatus (Presl) A. Love Giant Wild Rye

**Lolium perenne* L. Perennial Ryegrass

Nassella lepida (A.S. Hitchcock) Barkworth Foothill Needlegrass

Appendix 1. Floral Checklist of Species Observed - Emerald Hill Road Site (continued)

**Polypogon monspeliensis* (L.) Desf. Annual Beard Grass

**Setaria*...sp.....

**Schismus barbatus* (L.) Thell. Mediterranean Schismus

**Vulpia myuros* (L.) Gmelin var. *hirsuta* (Hackett) Asch & Graebner Foxtail Fescue

* - Denotes non-native plant taxa

Appendix 2. Animals Observed or Detected – Emerald Hill Road Site

COMMON NAME	SCIENTIFIC NAME
INVERTEBRATES	
ORTHOPTERA	
Acrididae - Grasshoppers	
Pallid Bandwing Grasshopper	<i>Trimerotropis pallidipennis</i>
Gryllidae - Crickets	
tree cricket	<i>Oecanthus</i> sp.
field cricket	<i>Gryllus</i> sp.
LEPIDOPTERA – BUTTERFLIES AND MOTHS	
Pieridae (Whites & Sulphurs)	
Cabbage White	<i>Pieris rapae</i>
Checkered White	<i>Pontia protodice</i>
HYMENOPTERA – ANTS, BEES, AND WASPS	
Apidae (True Bees)	
European Honeybee	<i>Apis mellifera</i>
REPTILES	
Phrynosomatidae (Spiny Lizards)	
Western Fence Lizard	<i>Sceloporus occidentalis</i>
BIRDS	
Cathartidae (New World Vultures)	
Turkey Vulture	<i>Cathartes aura</i>
Accipitridae (Hawks, Eagles, Harriers, Kites)	
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Columbidae (Pigeons and Doves)	
Mourning Dove	<i>Zenaida macroura</i>
Corvidae (Jays, Crows, Ravens, Magpies)	
Western Scrub-Jay	<i>Aphelocoma californica</i>
American Crow	<i>Corvus brachyrhynchos</i>
Aegithalidae (Bushtits)	
Bushtit	<i>Psaltiriparus minimus</i>
Timaliidae (Wrentits)	
Wrentit	<i>Chamaea fasciata</i>
Mimidae (Mockingbirds and Thrashers)	
Northern Mockingbird	<i>Mimus polyglottos</i>
California Thrasher	<i>Toxostoma redivivum</i>
Emberizidae (Towhees and Sparrows)	
California Towhee	<i>Pipilo crissalis</i>

Appendix 2. Animals Observed or Detected – Emerald Hill Road Site (continued)

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>
Icteridae (Blackbirds, Meadowlarks, and Orioles) Hooded Oriole	<i>Icterus cucullatus</i>
Fringillidae (Finches) House Finch Lesser Goldfinch	<i>Carpodacus mexicanus</i> <i>Carduelis psaltria</i>
MAMMALS	
Sciuridae (Squirrels, Chipmunks, and Marmots) California Ground Squirrel	<i>Spermophilus beecheyi</i>
Geomyidae (Pocket Gophers) Botta's Pocket Gopher	<i>Thomomys bottae</i> (excavations)

APPENDICES 3 AND 4

Appendix 3. Sensitive Flora Reported from USGS 7.5' Bonsall and Morro Hill, California quadrangles, and including those in Comprehensive List of Sensitive Species from County letter 1 May 2007

SPECIES NAME	STATUS Federal/State/CNPS/ San Diego County	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR ON SITE (OBSERVED OR L/M/H/U): Factual Basis for Determination
<i>Acanthomintha ilicifolia</i> San Diego Thorn-mint	FT/CE/1B (2-3-2)/yes	Chaparral, coastal scrub, valley & foothill grassland, vernal pools, endemic to active vertisol clay soils of mesas & valleys, usu on clay lenses within grassland or chaparral communities, 10-935 m.	Low: site lacks clay soils.
<i>Adophia californica</i> California Adolphia	None/None/2 (1-3-1)/yes	Chaparral, coastal sage scrub, valley & foothill grassland, from sandy/gravelly to clay soils within grassland, coastal sage scrub, or chaparral; various exposures, 15-300 m.	Low: site lacks clay soils.
<i>Ambrosia pumila</i> San Diego Ambrosia	FE/None/1B (3-3-2)/yes	Chaparral, coastal scrub, valley & foothill grassland, vernal pools, esp in sandy loam or clay soil, in valleys; persists where disturbance has been superficial, 20-415 m.	Low: searched for and not found.
<i>Brodiaea filifolia</i> Thread-leaved Brodiaea	FT/CE/1B (3-3-3)	Cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools, usu assoc w/annual grassland and vernal pools, oft surr by shrub habitats, clay soils, 35-855 m.	Low: site lacks clay soils.
<i>Brodiaea orcuttii</i> Orcutt's Brodiaea	FSC/None/1B (1-3-2)/yes	Vernal pools, valley & foothill grassland, closed-cone conif forest, cismontane woodland, chaparral, meadows, esp mesic, clay habitats, occ serpentine, in vernal pools & small drainages, 30-1615 m.	Low: site lacks clay soils.
<i>Calandrinia breweri</i> Brewer's Calandrinia	None/None/4 (1-2-2)/yes	Chaparral, coastal scrub/sandy or loamy, disturbed sites and burns, 10-1220 m.	Low: searched for and not found.
<i>Camissonia lewisii</i> Lewis' Evening-primrose	None/None/3 (?-?-2)/yes	Coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, valley & foothill grassland/sandy or clay, 0-300 m.	Low: searched for and not found.
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i> Orcutt's Pincushion	None/None/1B (2-3-2)	Coastal bluff scrub, coastal dunes, sandy sites, 3-100 m.	Low: site lacks appropriate habitats.
<i>Chorizanthe procumbens</i> Prostrate Spineflower	None/None/None/yes	Coastal scrub, chaparral, 0-800 m.	Low: searched for and not found.
<i>Convolvulus simulans</i> Small-flowered Morning-Glory	None/None/4 (1-2-2)/yes	Chaparral openings, coastal scrub, valley & foothill grassland/clay, serpentine seeps, 30-700 m.	Low: searched for and not found.
<i>Dichondra occidentalis</i> Western Dichondra	None/None/4 (1-2-1)/yes	Chaparral, cismontane woodland, coastal scrub, valley & foothill grassland, 50-500 m.	Low: searched for and not found.
<i>Dudleya multicaulis</i> Many-stemmed Dudleya	FSC/None/1B (1-2-3)	Chaparral, coastal scrub, valley & foothill grassland, esp. in heavy, often clayey soils or grassy slopes, 0-790 m.	Low: site lacks clay soils.

Appendix 3. Sensitive Flora Reported from USGS 7.5' Bonsall and Morro Hill, California quadrangles, and including those in Comprehensive List of Sensitive Species from County letter 1 May 2007

SPECIES NAME	STATUS Federal/State/CNPS/ San Diego County	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR ON SITE (OBSERVED OR L/M/H/U): Factual Basis for Determination
<i>Dudleya viscida</i> Sticky Dudleya	FSC/None/1B (2-2-3)/yes	Coastal scrub, coastal bluff scrub, chaparral, esp on north & south-facing cliffs & banks.	Low: site lacks appropriate habitats.
<i>Ericameria palmeri</i> ssp. <i>palmeri</i> Palmer's Goldenbush	None/None/1B (3-2-1)/yes	Coastal scrub, chaparral, granitic soils, steep hillsides, mesic areas; 100-600 m.	Low: searched for and not found.
<i>Juncus acutus</i> ssp. <i>leopoldii</i> Southwestern Spiny Rush	None/None/4 (1-2-1)/yes	Mesic coastal dunes, alkaline seeps in meadows, coastal salt marshes, 3-900 m.	Low: site lacks appropriate habitats.
<i>Navarretia fossalis</i> Spreading Navarretia	FT/None/1B (2-3-2)/yes	Vernal pools, chenopod scrub, marshes & swamps, playas, esp in SD hardpan & SD claypan vernal pools, in swales & vernal pools, often surr . by other habitat types, 30-1300 m.	Low: site lacks clay soils.
<i>Nolina cismontana</i> Chaparral Beargrass	None/None/1B (3-2-3)	Chaparral, cismontane woodland, coastal scrub, esp. gabbroic or metavolcanic substrate, 120-1,005 m.	Low: searched for and not found.
<i>Piperia cooperi</i> Chaparral Rein Orchid	None/None/4 (1-2-2)/yes	Chaparral, cismontane woodland, valley & foothill grassland, coastal sandstone formations, 15-1585 m.	Low: searched for and not found.
<i>Selaginella cinerascens</i> Ashy Spike-moss	None/None/4 (1-2-1) (6th ed., 2001, rejected-too common)/yes	Open areas of coastal sage scrub or chaparral to 500 m.	Low: searched for and not found.
<i>Tetracoccus dioicus</i> Parry's Tetracoccus	FSC/None/1B (3-2-2)/no	Chaparral, coastal scrub, esp stony fine sandy decomposed gabbro soil, 165-1000 m.	Low: searched for and not found.

Appendix 4. Sensitive Fauna reported from USGS 7.5' Bonsall and Morro Hill, California quadrangles (CNDDDB), and including those in Comprehensive List of Sensitive Species from County letter 5/1/2007

SPECIES NAME	STATUS Federal/State/CDFG/ San Diego County	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR ON SITE (OBSERVED OR L/M/H/U): Factual Basis for Determination
Hermes Copper <i>Hermelycaena hermes</i>	None/None/CSC/yes	Endemic to SD Co. Continuous stands of southern mixed chaparral/coastal sage scrub with both host plant <i>Rhamnus crocea</i> and primary nectaring plant <i>Eriogonum fasciculatum</i> in very close proximity. Species usually found along fairly open dirt roads/trails. Fallbrook is most northern record. Flight season: late May-early July.	Low: site lacks host plant.
Arroyo Chub <i>Gila orcutti</i>	FSC/None/CSC	LA Basin south coastal streams, esp slow water sections w/mud or sand bottoms	Low: unexpected. River flow is ephemeral and unlikely to support species. No recent records for any drainage in vicinity.
Western Spadefoot <i>Spea hammondi</i>	None/None/CSC/yes	Grassland habitats, valley & foothill woodlands, requires vernal pools for breeding.	Low: site lacks appropriate breeding habitat.
Arroyo Toad <i>Bufo californicus</i>	FE/None/CSC/yes	Semi-arid regions near washes or intermittent streams, incl. valley-foothill & desert riparian, desert wash, etc., esp rivers w/sandy banks, willows, cottonwoods, sycamores w/loose, gravelly areas.	Low: site assessment indicates unlikely to be used as upland habitat.
California Red-legged Frog <i>Rana aurora draytonii</i>	FT/None/CSC/yes	Marshes, streams, lakes, reservoirs, ponds and other permanent water sources.	Low: site lacks appropriate breeding habitat.
Southwestern (Southern Pacific) Pond Turtle <i>Clemmys marmorata pallida</i>	None/None/CSC/yes	Permanent or nearly permanent water in many habitat types; below 6000 ft, esp w/basking	Low: site lacks ponded water.
San Diego Banded Gecko <i>Coleonyx variegates abbotti</i>	None/None/None/yes	Variety of habitats, assoc w/ rocks & crevices.	Low: site lacks rocky habitats.
Coast (San Diego) Horned Lizard <i>Phrynosoma coronatum</i> (blainvillii population)	None/None/CSC/yes	Coastal sage scrub, chaparral in arid and semi-arid climate, esp. friable, rocky, or shallow sandy soils.	Low: majority of site has been used for agricultural purposes.
Coronado Skink <i>Eumeces skiltonianus interparietalis</i>	None/None/CSC/yes	Grassland, chaparral, piñon-juniper sage woodland, pine-oak & pine forests in coastal ranges in so. CA, esp prefers early successional stages or open areas, found in rocky areas close to streams & on dry hillsides.	Low: looked for and not found.

Appendix 4. Sensitive Fauna reported from USGS 7.5' Bonsall and Morro Hill, California quadrangles (CNDDDB), and including those in Comprehensive List of Sensitive Species from County letter 5/1/2007

SPECIES NAME	STATUS Federal/State/CDFG/ San Diego County	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR ON SITE (OBSERVED OR L/M/H/U): Factual Basis for Determination
Belding's Orange-throated Whiptail <i>Aspidoscelis hyperythrus beldingi</i>	None/None/CSC/yes	Coastal scrub (low elev.), chaparral, valley & foothill hardwood, esp washes & sandy areas w/patches of brush & rocks.	Low: majority of site has been used for agricultural purposes.
Coastal Whiptail <i>Aspidoscelis tigris stejnegeri</i>	None/None/None/yes	Deserts & semiarid areas w. sparse vegetation & open areas, also in woodland & riparian areas, esp. where ground may be firm soil, sandy, or rocky.	Low: majority of site has been used for agricultural purposes.
Silvery Legless Lizard <i>Anniella pulchra pulchra</i>	None/None/CSC/yes	Sparse vegetation of chaparral and riparian, loose soil for burrowing.	Moderate: sandy soils along San Luis Rey river may occasionally support this species.
Coastal Rosy Boa <i>Charina trivirgata roseofusca</i>	None/None/Protected/yes	Desert & chaparral from coast to Mojave & Colorado Deserts, esp in moderate to dense vegetation & rocky cover; habitats w/mix of brushy cover & rocky soil like coastal canyons & hillsides, desert canyons, washes & mountains.	Low: majority of site has been used for agricultural purposes.
San Diego Ring-necked Snake <i>Diadophis punctatus similis</i>	None/None/None/yes	Woodlands, forest, grassland, chaparral, gardens; under bark, logs, stones, & boards.	Low: majority of site has been used for agricultural purposes.
Coast Patch-nosed Snake <i>Salvadora hexalepis virgulata</i>	None/None/CSC/yes	Brushy or shrubby vegetation in coastal so. CA, esp. uses small mammal burrows for refuge.	Low: majority of site has been used for agricultural purposes.
Two-striped Gartersnake <i>Thamnophis hammondi</i>	None/None/CSC/yes	Coastal CA., fr/ Salinas to NW Baja, fr/sea level to approx. 7000 ft ; esp. highly aquatic, found in or near permanent fresh water, often along streams w/rocky beds & riparian growths.	Moderate: San Luis Rey river may occasionally support this species.
South Coast Gartersnake <i>Thamnophis sirtalis novum</i>	None/None/None	Associated with extensive riparian systems.	No specimens of this proposed taxon have been collected from this area of the San Luis Rey River.
Northern Red Diamond Rattlesnake <i>Crotalus ruber ruber</i>	None/None/CSC/yes	Chaparral, woodland, grassland & desert areas, esp in rocky areas & dense vegetation.	Low: majority of site has been used for agricultural purposes.
Least Bittern <i>Ixobrychus exilis</i>	None/None/CSC/no	Virtually restricted to large brackish and freshwater marshes in the coastal lowland.	Low: site lacks marsh habitats to support this species.
Green Heron <i>Butorides virescens</i>	None/None/None/yes	Uncommon to fairly common resident, preferring riparian woodland and margins of brackish lagoons or freshwater lakes and ponds in SD Co.	Moderate: San Luis Rey river may occasionally support this species.

Appendix 4. Sensitive Fauna reported from USGS 7.5' Bonsall and Morro Hill, California quadrangles (CNDDDB), and including those in Comprehensive List of Sensitive Species from County letter 5/1/2007

SPECIES NAME	STATUS Federal/State/CDFG/ San Diego County	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR ON SITE (OBSERVED OR L/M/H/U): Factual Basis for Determination
White-faced Ibis <i>Plegadis chihi</i>	None/None/CSC/no	(Rookery site) Shallow freshwater marsh. Dense tule thickets for nesting interspersed w/areas of shallow water for foraging.	Moderate: San Luis Rey river may occasionally support this species.
Turkey Vulture <i>Cathartes aura</i> (breeding)	None/None/None/yes	Specialized static soarer, forages over roads, fields, open forests, & other open habitats.	Low: no appropriate nesting habitat for this species.
White-tailed Kite <i>Elanus leucurus</i>	None/None/CFP/yes	Low rolling foothills/valley margins w/scattered oaks & river bottoms or marshes adj to deciduous woodland, esp. open grasslands, meadows, margins close to trees for nesting.	Moderate: no appropriate nesting habitat for this species; may occasionally forage over riverine portions of the site.
Northern Harrier <i>Circus cyaneus</i> (nesting)	None/None/CSC/yes	Coastal salt marsh & fresh-water marsh, nests and forages in grasslands and farmlands.	Moderate: no appropriate nesting habitat for this species; may occasionally forage over riverine portions of the site.
Sharp-shinned Hawk <i>Accipiter striatus</i> (nesting)	None/None/CSC/yes	Riparian woodlands, forests; forages at edges of open habitats.	Moderate: may occasionally forage over riverine portions of the site.
Cooper's Hawk <i>Accipiter cooperi</i>	None/None/CSC/yes	Woodland, usu. open, interrupted or marginal type, nests mainly in riparian areas.	Moderate: no appropriate nesting habitat for this species; may occasionally forage over riverine portions of the site.
Red-shouldered Hawk <i>Buteo lineatus</i>	None/None/None/yes	Riparian woodlands, forests; forages at edges of open habitats.	Moderate: no appropriate nesting habitat for this species; may occasionally forage over open habitats on the site.
Golden Eagle <i>Aquila chrysaetos</i>	BCC/None/CSC, CFP/yes	Foothills, mountains grasslands, deserts, and shrub habitats.	Moderate: no appropriate nesting habitat for this species; may occasionally forage over open habitats on the site.
Western Yellow-billed Cuckoo <i>Coccyzus americanus occidentalis</i>	FC, BCC/CE/None/yes	Riparian forest nester, along broad, lower flood-bottoms of larger river systems, esp nests in riparian jungles of willow, often w/cottonwoods.	Low: no appropriate nesting habitat for this species.
Common Barn Owl <i>Tyto alba pratincola</i>	None/None/None/yes	Uncommon but very widespread resident, occurring in agricultural and residential areas, grassland, riparian and oak woodland and in broken chaparral near sandstone bluffs (Unitt 1984) in San Diego County.	Low: no appropriate nesting habitat for this species.
Burrowing Owl <i>Athene [Speotyto] cunicularia</i> (burrow sites)	BCC/None/CSC/yes	Open dry annual or perennial grasslands, desert & scrublands w/low growing vegetation, uses ground squirrel burrows for nesting.	Low: no appropriate nesting habitat for this species.

Appendix 4. Sensitive Fauna reported from USGS 7.5' Bonsall and Morro Hill, California quadrangles (CNDDDB), and including those in Comprehensive List of Sensitive Species from County letter 5/1/2007

SPECIES NAME	STATUS Federal/State/CDFG/ San Diego County	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR ON SITE (OBSERVED OR L/M/H/U): Factual Basis for Determination
Long-eared Owl <i>Asio otus</i>	None/None/CSC/yes	Riparian bottomlands grown to tall willows & cottonwoods, belts of live oak parallel to streams.	Low: no appropriate nesting habitat for this species.
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i>	FE/CE/None/yes	Extensive thickets of low, dense willows, often near streams.	Low: no appropriate nesting habitat for this species.
Loggerhead Shrike <i>Lanius ludovicianus</i>	BCC/None/CSC/yes	Open habitats with scattered shrubs & other perches.	Low: no appropriate foraging habitat for this species.
Least Bell's Vireo <i>Vireo bellii pusillus</i>	FE, BCC/CE/None/yes	Summer resident in So. Cal., inhabits low riparian growth in vic. of water or in dry river bottoms, below 2000 ft, usu. willow, Baccharis, mesquite.	Low: protocol survey did not reveal presence of species.
Coastal Cactus Wren <i>Campylorhynchus brunneicapillus couesi</i>	None/None/CSC/yes	So. Cal. coastal sage scrub, esp w/tall <i>Opuntia</i> cactus for nesting.	Low: no appropriate dense cactus patches to support this species.
Coastal California Gnatcatcher <i>Poliophtila californica californica</i>	FT/None/CSC/yes/	Coastal sage scrub, below 2,500 ft in So. Cal., esp low coastal scrub in arid washes, mesas & slopes.	Low: protocol survey did not reveal presence of species.
Western Bluebird <i>Sialia mexicana</i>	None/None/None	Small groups in fields or open woodlands, often perched on wires or fences.	Low: majority of site has been used for agricultural purposes.
Yellow Warbler <i>Dendroica petechia brewsteri</i>	None/None/SC/yes	Riparian plant associations, prefers willows, cottonwoods, aspens, sycamores & alders for nesting & foraging, esp nests in montane shrubbery in open conifer forests.	Moderate: riparian habitats in San Luis Rey river may support this species.
Yellow-breasted Chat <i>Icteria virens</i>	None/None/CSC	Summer resident in riparian thickets of willow & other brushy tangles near watercourses, nests in low, dense riparian habitat.	Moderate: riparian habitats in San Luis Rey river may support this species.
Southern California Rufous-crowned Sparrow <i>Aimophila ruficeps canescens</i>	None/None/CSC/yes	Coastal sage scrub, sparse chaparral, esp rel. steep, often rocky hillsides w/grass & forb patches	Low: searched for and not found.
Bell's Sage Sparrow <i>Amphispiza belli</i>	BCC/None/CSC/yes	Coastal chaparral, coastal sage scrub, and sagebrush desert habitat.	Low: searched for and not found.
Tricolored Blackbird <i>Agelaius tricolor</i> (nesting colony)	BCC/None/CSC/yes/	Breeds near fresh water in emergent wetlands w/dense cattails or tules. Feeds in grassland & cropland.	Low: searched for and not found.
Pallid Bat <i>Antrozous pallidus</i>	None/None/CSC/yes	Caves, tunnels, attics, crevices, variety of other locations. Grassland, shrublands, woodlands, forests, most common in open dry habitats with rocky	Low: no appropriate roosting habitat on site.

Appendix 4. Sensitive Fauna reported from USGS 7.5' Bonsall and Morro Hill, California quadrangles (CNDDDB), and including those in Comprehensive List of Sensitive Species from County letter 5/1/2007

SPECIES NAME	STATUS Federal/State/CDFG/ San Diego County	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR ON SITE (OBSERVED OR L/M/H/U): Factual Basis for Determination
Western Mastiff Bat <i>Eumops perotis californicus</i>	None/None/CSC/yes	Small colonies in rocky cliffs or crevices. Variety of open habitats including woodlands, coastal sage scrub, grasslands, chaparral, desert scrub, and urban.	Low: no appropriate roosting habitat on site.
California Leaf-nosed Bat <i>Macrotus californicus</i>	None/None/CSC/yes	Distribution poorly known; strongly associated w/desert riparian & wash habitats; roost in mine shafts & caves.	Low: no appropriate roosting habitat on site.
Mexican Long-tongued Bat <i>Choeronycteris mexicana</i>	None/None/None/yes	Occasionally found in SD Co., which is on periphery of range. Feeds on nectar & pollen of night-blooming succulents. Roosts in relatively well-lit caves, & in & around bldgs.	Low: no appropriate roosting habitat on site.
Western Red Bat <i>Lasiurus blossevillii</i>	None/None/None/yes	Trees along or near waterways with open foraging areas. Feeds over grasslands, shrublands, woodlands & forests.	Low: no appropriate roosting habitat on site.
Spotted Bat <i>Euderma maculatum</i>	None/None/CSC/yes	Prefers sites w/adequate roosting habitat, such as cliffs; feeds over water and along washes, may move fr forests to lowlands in autumn	Low: no appropriate roosting habitat on site.
Pocketed Free-tailed Bat <i>Nyctinomops femorosaccus</i>	None/None/CSC/yes	Small colonies in rocky cliffs or crevices. Found in desert scrub, desert riparian, scrublands, pinyon-juniper woodlands. Rocky areas with high cliffs.	Low: no appropriate roosting habitat on site.
Big Free-tailed Bat <i>Nyctinomops macrotis</i>	None/None/CSC/yes	Small colonies in rocky cliffs or crevices. Found in desert scrub, desert riparian, scrublands, pinyon-juniper woodlands. Rocky areas with high cliffs.	Low: no appropriate roosting habitat on site.
San Diego Black-tailed Jackrabbit <i>Lepus californicus bennettii</i>	None/None/CSC/yes	Variety of habitats including coastal sage scrub, chaparral, & desert scrub, generally found in open or semi-open country.	Low: searched for and not found.
Northwestern San Diego Pocket Mouse <i>Chaetodipus fallax fallax</i>	None/None/CSC/yes	Coastal scrub, chaparral, grasslands, sagebrush, etc. in southwestern CA, esp. sandy, herbaceous areas w/rocks or coarse gravel.	Low: searched for and not found.
Dulzura (California) Pocket Mouse <i>Chaetodipus californicus femoralis</i>	None/None/CSC/yes	Variety of habitats incl coastal scrub, chaparral, sagebrush, & grassland. Attracted to grassland-chaparral edges.	Low: searched for and not found.

Appendix 4. Sensitive Fauna reported from USGS 7.5' Bonsall and Morro Hill, California quadrangles (CNDDDB), and including those in Comprehensive List of Sensitive Species from County letter 5/1/2007

SPECIES NAME	STATUS Federal/State/CDFG/ San Diego County	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR ON SITE (OBSERVED OR L/M/H/U): Factual Basis for Determination
Stephens' Kangaroo Rat <i>Dipodomys stephensi</i>	FE/CT/None/no	Annual & perennial grasslands, also coastal scrub, sagebrush, esp w/buckwheat, Chamise, brome grass & Filaree.	Low: no appropriate open grassy habitat on site.
San Diego Desert Woodrat <i>Neotoma lepida intermedia</i>	None/None/CSC/yes	Mixed & Chamise-redshank chaparral, sagebrush & other habitats. Prefers rocky areas to build stick nest.	Low: no extensive chaparral habitat on site.
American Badger <i>Taxidea taxus</i>	None/None/CSC/yes	Uncommon resident throughout the state. Abundant in drier open shrub, forest, & herbaceous habitats with friable soils.	Low: majority of site has been used for agricultural purposes.
Mountain Lion <i>Felis (Puma) concolor</i>	None/None/None/yes	Widespread, uncommon resident ranging from sea level to alpine meadows. Variety of habitats except xeric regions of the	Low: majority of site has been used for agricultural purposes.
Southern Mule Deer <i>Odocoileus hemionus</i>	None/None/Game Species/yes	Common to abundant w/ wide distribution throughout state. Prefers mosaic of various-aged vegetation habitats; brushy areas & tree thickets important for escape cover.	Low: majority of site has been used for agricultural purposes.

DEFINITIONS OF SENSITIVITY RATINGS

California Native Plant Society (CNPS)

List Status

List 1A	Plants presumed extinct in California. CEQA consideration mandatory
List 1B	Plants rare, threatened, or endangered in California and elsewhere. CEQA consideration mandatory
List 2	Plants rare, threatened, or endangered in California, but more common elsewhere. CEQA consideration mandatory
List 3	Plants about which we need more information - a review list. CEQA consideration strongly recommended
List 4	Plants of limited distribution - a watch list. CEQA consideration strongly recommended

CNPS R-E-D Code

R (Rarity)

1	Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time
2	Distributed in a limited number of occurrences, occasionally more if each occurrence is small
3	Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported

E (Endangerment)

1	Not endangered
2	Endangered in a portion of its range
3	Endangered throughout its range

D (Distribution)

1	More or less widespread outside California
2	Rare outside California
3	Endemic to California

State-Listed/Designated Plants and Animals

CE	State-listed, endangered
CT	State-listed, threatened
CR	State-listed, rare
CC	Candidate for State listing
CSC	California Special Concern Species (Department of Fish and Game)
CFP	California Fully Protected

Federally-Listed/Designated Plants and Animals

FE	Federally-listed, endangered
FT	Federally-listed, threatened
PE	Federally-proposed, endangered
PT	Federally-proposed, threatened
FC	Candidate for Federal listing
BCC	Birds of Conservation Concern
C2*	Threat and/or distribution data are insufficient to support federal listing, but the plant is presumed extinct
C3c	Too widespread and/or not threatened
USFWS 2002 List	U. S. Fish & Wildlife Service Birds of Conservation Concern 2002 List within jurisdiction of Carlsbad FWO "...to identify species, subspecies, and populations of migratory and non-migratory birds in need of additional conservation actions."

National Audubon Society WatchList

Red List	Identified by BirdLife International as Threatened or Near-threatened at the global level and by Partners in Flight as Extremely High Priority at the national level
Yellow List	Identified by Partners in Flight at the national level as of Moderately High Priority or Moderate Priority

ATTACHMENT 1. HABITAT ASSESSMENT FOR ARROYO TOAD



June 19th, 2007

Ms. Ruth Prado
Pacific Southwest Biological Services, Inc.
P.O. Box 985
National City, Ca 91921-0985

Subject: Results of Arroyo Toad Habitat Assessment for The Emerald Hills #U940 Project Site, Bonsall, San Diego County, California

Dear Ms. Prado:

This letter presents the results of a breeding and upland habitat assessment for the federally endangered arroyo toad (*Bufo californicus*) within the 31 acre – Emerald Hills #U940 project site (Project Site) in the Bonsall Community Planning Area, San Diego County, California.

PROJECT SITE LOCATION/DESCRIPTION

The Project Site extends both east and west of State Highway 76 approximately 0.25 mile north of North River Road. The region of the Project Site located west of SH76 is dominated by orchards, coastal sage scrub, annual grasslands, and disturbed habitats. The region of the Project Site located east of SH76 within the San Luis Rey flood prone area is dominated by Mexican elderberry woodland, annual grassland, ruderal, disturbed (arrundo removal areas), and southern cottonwood willow riparian forest.

BACKGROUND

The arroyo toad was listed as an endangered species by the U.S. Fish and Wildlife Service (USFWS) on December 16, 1994 (59 FR 241: 64859-64866) (USFWS 1994), and is considered a species of special concern by the California Department of Fish and Game (CDFG) (CDFG 2000). This rather uniformly warty, stocky toad has a light-colored stripe across the head that includes the eyelids. The parotoid glands are oval-shaped, widely separated, and pale toward the front. The underside of the arroyo toad is usually buff-colored and unspotted, and the cranial crests are absent or weak. Early descriptions of the habitat requirements for the arroyo toad are based on detailed life history studies conducted over a period of years by Sweet (1992, 1993). Much of that work was conducted in the Los Padres National Forest in Santa Barbara County. Subsequent to this work, additional studies of populations in other portions of the range have resulted in a somewhat broader habitat description (e.g., Griffin et al. 1999, Ramirez et al. 1999, 2000, 2001, 2002, 2003). It can generally be said that the arroyo toad frequents third order or larger washes, streams, and arroyos in semiarid parts of the southwest. Stream substrates range from sands to small cobble, with sandy banks supporting mule fat (*Baccharis salicifolia*), willows (*Salix* spp.), cottonwoods (*Populus* spp.), or sycamores (*Platanus racemosa*). The arroyo toad breeds both within streams and in small backwater pools that form along the stream margins, usually in relatively shallow water (four inches).

On April 13th, 2005 the USFWS published a Final Rule to designate 11,695 acres of land as critical habitat for the federally endangered arroyo toad. These lands encompass portions of Ventura, Los

Angeles, San Bernardino, and Riverside Counties in California. The critical habitat designation would cover not only riparian habitat used by the toad, but also upland areas less than 25-meters (80-feet) in elevation above the adjacent stream and within 1.5 kilometers (0.9 mile) from the margins of occupied stream systems. Critical habitat refers to specific geographic areas that are essential for the conservation of a threatened or endangered species and that may require special management considerations. These areas do not necessarily have to be occupied by the species at the time of designation. A critical habitat designation does not set up a preserve or refuge and only applies to situations where federal funding or a federal permit is involved.

The USFWS did not include critical habitat designation for the arroyo toad in Orange or San Diego Counties. All essential lands located within these Counties were excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons. (USFWS 2005) The Project Site is located in San Diego County and is not included in the USFWS final critical habitat designation for the arroyo toad.

METHODS

Ruben S. Ramirez, Jr., research biologist, conducted a review of literature pertaining to the life history, habitat requirements, and distribution of the arroyo toad within and adjacent to the Project Site. Mr. Ramirez has conducted research for the arroyo toad for over 10-years and possesses a USFWS permit for conducting natural history studies for the arroyo toad utilizing radio-telemetry, pitfall traps, and passive integrated transponders (PRT-780566-10). Prior to initiating the site survey, the Project Site boundary was mapped onto a recent digitally orthorectified aerial photograph for the purpose of accurately surveying all areas within and adjacent to the Project Site.

A reconnaissance survey of the Project Site was conducted by Mr. Ramirez on June 13th, 2007 to qualitatively assess potential breeding and upland habitat for the arroyo toad. The survey included an assessment of all habitats and culverts (potential movement routes) present within and adjacent to the Project Site.

RESULTS

Arroyo Toad Distribution Within Vicinity of Project Site

The arroyo toad has been documented within the San Luis Rey River flood prone area both up- and downstream of the Project Site vicinity (USFWS Database 2007, CNDDDB 2007). Specifically, the California Department of Fish and Game Natural Diversity Data Base (CNDDDB) has several arroyo toad records within the San Luis Rey. These records include an individual approximately 2.5 miles upstream from the confluence of Olive Hill Road and the San Luis Rey River within the upland habitat, 0.25 mile from the San Luis Rey River flood prone area near Gird Road (CNDDDB 2004). In addition, several arroyo toad observations have been documented within the San Luis Rey flood prone area up- and downstream of the Project Site vicinity (USFWS 2007).

Characteristics of Suitable Arroyo Toad Breeding and Upland Habitat

Arroyo toads have very specific habitat requirements (Jennings and Hayes 1994). Suitable habitat includes rivers and streams with the following primary constituent elements (i.e., physical and biological features that are essential to the conservation of the species) based on studies completed by Sweet (1992, 1993), Griffin (1999), Ramirez (1999, 2000, 2001, 2002, 2003) and summarized by USFWS (2000):

1. A hydrologic regime that supplies sufficient flowing water of suitable quality for breeding followed by complete metamorphosis (i.e., hatching from eggs into tadpoles and completed development from tadpoles into juvenile toads). In the northern portion of the range, surface water, either as stream flow or persisting pools, must last into at least July.
2. Low gradient stream segments with shallow breeding pools for mating and egg laying with sandy or fine gravel beds where egg masses are deposited and tadpoles develop and sparsely vegetated sand and gravel bars that are sufficiently wet, at least temporarily, for juvenile toads to forage and burrow.
3. A natural flooding regime, which reworks sand and gravel bars, scours dense streamside vegetation, and deposits streamside sand bars and upland sand terraces such that breeding pools, terraces, and vegetation requirements are maintained for all life stages of the toad.
4. Upland sandy terrace habitats of sufficient width and quality with areas of loose sandy soil where adult toads can burrow outside the breeding season.
5. Few or no non-native wildlife species (e.g., crustaceans, gamefish and bullfrogs) which may compete with or prey on adult or juvenile toads and/or tadpoles and plants (e.g., giant reed which chokes out native vegetation and may alter flood patterns).
6. Streams and upland areas absent of artificial barriers which interfere with natural flooding regimes and toad movement (e.g., migration to and from breeding pools, dispersal between populations, or recolonization of previously occupied areas).
7. Habitats undisturbed by grading, agriculture, or other human-associated land use conversions.

This suite of conditions is vital to the persistence of viable toad populations, yet occur in dynamic stream systems that are inherently unstable and can change within the lifetime of an individual, for example by a flood event. Arroyo toad habitat is generally produced and maintained by narrow drainages of intermediate size (Sweet 1992), typically third to sixth order streams or larger, generally where the stream is still bordered by ridges of moderate relief and the stream gradient is low. In headwater areas above these stream segments, the higher stream gradient, lack of sediment build up, and smaller amount of available water result in sections that dry too soon. Downstream of these areas, the broader canyons and increased streambed width result in early loss of surface flows or increased stream gradients drain available water too quickly.

Characteristics of Suitable Arroyo Toad Breeding and Upland Habitat Within and Adjacent to the Project Site

To evaluate the presence of potentially suitable breeding and upland habitat within and adjacent to the Project Site, habitat conditions observed during the site survey were compared with the primary constituent elements identified above.

Breeding Habitat

No arroyo toad breeding habitat was documented within the Project Site boundary including the region located east of SH76 within the San Luis Rey flood prone area. However, high to low quality arroyo toad breeding habitat is located east of the Project Site within the active channel of the San Luis Rey River including up and downstream reaches.

Upland Habitat

The majority of onsite native and non-native habitats located east of SH76 are expected to be utilized by the arroyo toad for foraging and/or aestivation as shown in Attachment A, Arroyo Toad Habitat Assessment. Specifically, the Mexican elderberry woodland, southern cottonwood willow riparian forest, and some sparse patches of scrub habitat possess canopy covers, soil types and detritus commonly documented as being utilized by arroyo toads as aestivation sites. Also, no insurmountable barriers occur between the San Luis Rey River and these habitats which would prevent the toads from accessing this region of the Project Site. Although the remaining disturbed and ruderal habitats east of SH76 are not expected to be utilized for aestivation, these areas do represent suitable foraging habitats and are also expected to be utilized as travel routes between breeding and aestivation habitats located within and adjacent to the Project Site east of SH76.

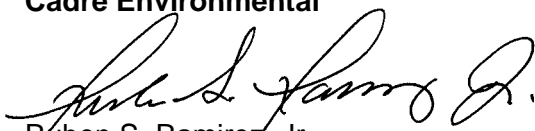
Although the coastal sage scrub habitat located within the Project Site west of SH76 is expected to have been utilized as upland habitat prior to the construction of SH76 by the arroyo toad, only occasional sallies into this region are expected to occur based on the current baseline conditions. It is extremely unlikely that toads can successfully cross SH76 on a consistent basis with the high level of traffic this highway experiences at all hours as shown in Attachment B, Project Site Photographs. Also, the three culverts which occur onsite are not expected to be extensively utilized as travel routes by the arroyo toad based on their position and characteristics. Based on the configuration, size, and topography associated with specific culverts located along the length of SH76, expected use of these access points varies. Larger culverts associated with a clear bed and bank, lack of obstructions, and short lengths are expected to be utilized more often than isolated small culverts with no clear path to the access points with thick layers of vegetation blocking the entrances (east of SH76) as documented within the Project Site and shown in Attachments C and D, Project Site Photographs.

CONCLUSION

No breeding habitat for the arroyo toad occurs within the Project Site. However, potential breeding habitat for the arroyo toad is present within the San Luis Rey River flood prone area 150 feet east of the Project Site's southeast corner. Based on the lack of obstructions between potential breeding habitat and the presence of potential foraging and/or aestivation habitat located east of SH76 within the Project Site, this area is expected to be utilized by the arroyo toad. Based on the size, location and general characteristics of the three culverts which lead under SH76, the western region of the project site (west of SH76) is not expected to be commonly utilized by the arroyo toad. The extensive traffic which SH76 experiences throughout the day also decreases the likelihood that toads are successfully crossing the road to access the habitats located west of SH76.

If you have any comments or questions, please contact me at 949.300.0212 or e-mail me at r.ramirez@cadreenvironmental.com.

Sincerely,
Cadre Environmental



Ruben S. Ramirez, Jr.
Research Biologist

ATTACHMENT A – Arroyo Toad Habitat Assessment

ATTACHMENT B – Project Site Photograph

ATTACHMENT C – Project Site Photograph

ATTACHMENT D – Project Site Photograph

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Attachment A - Arroyo Toad Habitat Assessment
Emerald Hills # U940
Bonsall Community Planning Area, San Diego County, California

CADRE
 Environmental



1 inch = 200 feet



Top: Eastward view of the San Luis Rey flood prone area. Dominant vegetation communities documented within the Project Site located east of State Highway 76 include Mexican elderberry woodland, annual grassland, ruderal, disturbed (arrundo removal), and southern cottonwood willow riparian forest. All of these habitats represent potential arroyo toad aestivation and/or foraging habitat. Bottom: Southward view of State Highway 76 which bisects the eastern portion of the Project Site and which represents a significant movement barrier to the arroyo toad from accessing potential upland habitat located west of the Highway.



Top: Culverts #1 located east of State Highway 76 within the San Luis Rey Flood Prone Area and the Project Site. Although these culverts extend west (drains eastward) under State Highway 76 to native open space habitats they are not expected to be commonly utilized by the arroyo toad for movement. The culverts only experience ephemeral flow and they do not extend into a defined active channel within the flood prone area which would direct arroyo toads to these locations. Bottom: Culverts #1 located east of State Highway 76 within the Project Site. Although the native habitats located west of SH 76 historically represented suitable arroyo toad aestivation and foraging habitat at this location, the absence of well defined movement routes and the presence of SH 76 reduce the likelihood that this area is currently utilized by the species.



Top: Culverts #2 located east of State Highway 76 within the San Luis Rey Flood Prone Area and the Project Site. Although this culvert (including Culvert #3) extends west (drains eastward) under State Highway 76 to native open space habitats they are not expected to be commonly utilized by the arroyo toad for movement. The culverts only experience ephemeral flow and they do not extend into a defined active channel within the flood prone area which would direct arroyo toads to these locations. Bottom: Culverts #2 located east of State Highway 76 within the Project Site. Although the native habitats located west of SH 76 historically represented suitable arroyo toad aestivation and foraging habitat at this location, the absence of well defined movement routes and the presence of SH 76 reduce the likelihood that this area is currently utilized by the species.

ATTACHMENT 2. COASTAL CALIFORNIA GNATCATCHER SURVEY



**EMERALD HILL PROJECT MINOR SUBDIVISION
EMERALD HILL ROAD
BONSALL COMMUNITY PLANNING AREA
SAN DIEGO COUNTY, CALIFORNIA**

COASTAL CALIFORNIA GNATCATCHER SURVEY

APN: 126-250-23
Case No.: TPM 21057; Environmental Log No.: 07-02-005

UTM: [NAD 83]: 11-S: 477,913mE; 3,681,858mN

Prepared for:
County of San Diego

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PSBS #U940

3 August 2007

R. Mitchel Beauchamp, M. Sc., President,
Certified Biologist, County of San Diego

**EMERALD HILL PROJECT MINOR SUBDIVISION
EMERALD HILL ROAD
BONSALL COMMUNITY PLANNING AREA
SAN DIEGO COUNTY, CALIFORNIA**

COASTAL CALIFORNIA GNATCATCHER SURVEY

3 August 2007

SUMMARY

A presence/absence protocol survey for the Coastal California Gnatcatcher was conducted on the Emerald Hill Road site in the unincorporated community of Bonsall, northern San Diego County, California. **The Coastal California Gnatcatcher was not detected.** No other sensitive species were observed.

INTRODUCTION

PURPOSE OF THE STUDY

Pacific Southwest Biological Services, Inc., (Pacific Southwest), at the request of Mr. Kyle Guerrero of Brian F. Smith and Associates, conducted a focused survey for the Coastal California Gnatcatcher (*Polioptila californica californica*) (Gnatcatcher) on a 6.79-acre portion of the 31.85-acre site. The acreage surveyed supports Diegan Coastal Sage Scrub. The purpose of the survey was to determine the presence/absence status of the Gnatcatcher, a species listed as Threatened by the U. S. Fish and Wildlife Service (Service). This report provides the methods and results of the survey.

SITE LOCATION

The site is located in the unincorporated community of Bonsall on both sides of a north-south portion of State Route (SR) (Mission Road) 76, between Olive Hill Road and North River Road, in northwestern San Diego County (Figures 1 and 2). The site is situated in the southern ¼ of Section 30, Township 10 South, Range 3 West, of the San Bernardino Base and Meridian, USGS 7.5' Bonsall, California quadrangle, at approximately UTM [NAD 83]: 11-S: 477,913mE; 3,681,858mN. The majority of the site is situated west of SR76, but a small portion is situated to the east of this road. The survey area was accessed from the dirt shoulder pullout for Callbox 76-106 on the east side of SR76.

PROJECT DESCRIPTION

The proposed project is a minor subdivision of the 31.85-acre property into four residential parcels ranging in size from 2.21 to 3.11 net acres and one 12.97-acre Designated Remainder Parcel.

SURVEY METHODS

Biologist Claude G. Edwards (federal permit TE-814215-4, expires 21 June 2009) performed the Gnatcatcher surveys in accordance with Service protocol (USFWS 1997). Field methods consisted of walking slowly through appropriate habitat while watching and listening for the Gnatcatcher. “Pishing,” a technique commonly used to elicit response of passerines and draw them into view, was occasionally employed. Binoculars (8x32) were used to assist in the detection and identification of wildlife. The survey area was of such size that it could be covered on each visit, although survey routes were not identical for each visit. The schedule and conditions during the field visits are summarized below.

Table 1. Survey Dates, Time and Field Conditions

DATE	TIME	CONDITIONS
31 May 2007	0845-0945 hours	Start: Overcast; calm winds; 66°F. End: Overcast; calm winds, 70°F.
07 June 2007	0900-1030 hours	Start: Clear; calm winds; 66°F. End: Clear; calm winds; 68°F.
14 June 2007	0815-0915 hours	Start: Overcast; calm winds; 66°F. End: Clear; light westerly winds 0-4 mph; 70°F.

DEFINITIONS

Vegetation Communities

The classification of vegetation communities is based upon the life form of the dominant species within the community and the associated flora.

Species Nomenclature

The scientific nomenclature used in this report is from the following standard references: vascular plants (Beauchamp 1986, Hickman 1993, Rebman and Simpson 2006); vegetation communities (Holland 1986, Oberbauer 2005); invertebrates (Hogue 1993); reptiles (Crother 2000); birds (American Ornithologists’ Union 1998, 2006); and mammals (Jameson and Peeters 1988).

SURVEY RESULTS

GENERAL PHYSIOGRAPHY

The Gnatcatcher survey was performed within Diegan Coastal Sage Scrub, both east and west of SR 76 (Figure 3). The greater proportion of suitable habitat occurs on moderately steep east-facing terrain west of SR 76, with a smaller portion on somewhat more level terrain to the east. Elevation of the acreage surveyed ranges from approximately 225 feet above mean sea level along SR76 to approximately 275 feet along a dirt road bordering an orchard continuing farther upslope to the west.

Surrounding land uses include the San Luis Rey River floodplain to the east, fruit orchards on slopes to the south and west, and buildings, parking lots, landscaping, and surface roads associated with commercial businesses to the north.

BOTANICAL RESOURCES

Vegetation Communities

A description of the Diegan Coastal Sage Scrub (DCSS) on the site, the Holland Element Code Number (#), and its approximate extent follow.

Diegan Coastal Sage Scrub (#32500) (6.16 acres).

The DCSS vegetation on the west side of SR76 represents a regrowth in an area where this vegetation had previously been removed in association with previous agricultural activity, presumably vegetable cultivation. The northern portion remains mostly open, where the native plants characteristic of DCSS are intermixed with annual and perennial herbaceous plants dominated by exotics. The southern portion supports better quality DCSS vegetation. Sections of black irrigation tubing and pieces of white PVC pipe, as well discarded lumber and miscellaneous refuse, are present at various scattered localities. In addition, remnants of previously cleared DCSS and orchard trees are piled along the dirt road to the west.

The better quality DCSS varies in height and density. Characteristic plants include California Sagebrush (*Artemisia californica*), California Buckwheat (*Eriogonum fasciculatum*), White Sage (*Salvia apiana*), and Black Sage (*Salvia mellifera*), with lesser amounts of Laurel Sumac (*Malosma laurina*), Deerweed (*Lotus scoparius*), and Bush Monkeyflower (*Mimulus aurantiacus*).

The small amount of DCSS present on the east side of SR 76 appears to be on the fill slope created during the construction of the road decades previously.

Flora

A total of fifty-nine plant taxa was recorded during the Gnatcatcher surveys, of which twenty-four species (41%) are non-native (Appendix 1).

Sensitive Flora

No sensitive plants were observed.

ZOOLOGICAL RESOURCES

Fauna

A total of 22 wildlife species was observed during the surveys: six invertebrate species, one reptile, 13 birds, and two mammals (Appendix 2). All are common and widespread in coastal San Diego County. **The Coastal California Gnatcatcher was not detected.**

Sensitive Fauna

No sensitive wildlife species were observed.

DISCUSSION

The small size of the DCSS on the site, its generally poor quality, and relative isolation detract from the site's ability to attract and support the Gnatcatcher. It is highly unlikely that the Gnatcatcher would nest on the property in its current condition.

CERTIFICATION

I hereby certify that the statements furnished above and in attached exhibits present the data and information required by the Service protocol for a presence/absence survey for the Coastal California Gnatcatcher (*Polioptila californica californica*) and that the facts, statements and information presented here are true and correct to the best of my knowledge and belief.

DATE: _____

SIGNED: _____
Claude G. Edwards

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APPENDIX 1. FLORAL CHECKLIST OF SPECIES OBSERVED**DICOTYLEDONS****Adoxaceae** – Adoxus Family

Sambucus mexicana DC. Blue Elderberry

Amaranthaceae - Amaranthus Family

- * *Chenopodium album* L. Lamb's Quarters
- Chenopodium californicum* (Wats.) Wats. California Goosefoot
- * *Salsola tragus* L. Russian Thistle

Anacardiaceae - Sumac Family

Malosma laurina (Torr. & Gray) Abrams Laurel Sumac
Toxicodendron diversilobum (Torr. & A.Gray) E. Greene Poison Oak

Apiaceae - Carrot Family

- * *Conium maculatum* L. Common Poison Hemlock
- * *Foeniculum vulgare* Mill. Fennel

Asteraceae - Sunflower Family

- Acourtia microcephala* DC. Sacapellote
Ambrosia psilostachya DC. Western Ragweed
Artemisia californica Less. California Sagebrush
Baccharis pilularis DC. Coyote Brush
- * *Carduus pycnocephalus* L. Italian Thistle
 - * *Centaurea melitensis* L. Tocalote
 - * *Conyza bonariensis* (L.) Cronq. Flax-leaf Fleabane
 - * *Conyza canadensis* (L.) Cronq. Horseweed
- Eriophyllum confertiflorum* (DC.) Gray var. *confertiflorum* Golden-yarrow
Gnaphalium bicolor Bioletti Bicolor Cudweed
Gnaphalium californicum DC. California Everlasting
Heterotheca grandiflora Nutt. Telegraph Weed
Isocoma menziesii (Hook. & Arn.) Nesom var. *vernonioides* (Nutt.) Nesom Coast Goldenbush
Stephanomeria virgata Benth. Virgate Wreath-plant

Brassicaceae - Mustard Family

- * *Brassica nigra* (L.) Koch Black Mustard
- * *Hirschfeldia incana* (L.) Lagr.-Fossat Short-pod Mustard
- * *Raphanus sativus* L. Wild Radish
- * *Sisymbrium altissimum* L. Tumble Mustard

Cactaceae - Cactus Family

- * *Opuntia ficus-indica* (L.) Miller Indian-fig
- Opuntia littoralis* (Engelm.) Ckll. var. *littoralis* Coast Prickly-Pear

Convolvulaceae - Morning-Glory Family

Calystegia macrostegia (Greene) Brumm. Wild Morning-glory

Cucurbitaceae - Gourd Family

Marah macrocarpus (Greene) Greene var. *macrocarpus* Wild-cucumber

Euphorbiaceae - Spurge Family

- Eremocarpus setigerus* (Hook.) Benth. Doveweed
- * *Ricinus communis* L. Castor-bean

APPENDIX 1. FLORAL CHECKLIST OF SPECIES OBSERVED (CONTINUED)**Fabaceae** - Legume Family

Lotus scoparius (Nutt.) Ottley var. *scoparius* Coast Deerweed

Fagaceae - Oak Family

Quercus agrifolia Nee Coast Live Oak

Geraniaceae - Geranium Family

* *Erodium botrys* (Cav.) Bertol. Long-beak Filaree

Hydrophyllaceae - Waterleaf Family

Phacelia cicutaria Greene var. *hispida* (Gray) Howell Caterpillar Phacelia

Phacelia ramosissima Lehm. var. *latifolia* (Torr.) Cronq. Branching Phacelia

Lamiaceae - Mint Family

* *Marrubium vulgare* L. Horehound

Salvia apiana Jeps. White Sage

Salvia mellifera Greene Black Sage

Nyctaginaceae - Four-O'Clock Family

Mirabilis laevis (Benth.) Curran var. *crassifolia* (Choisy) Spellenb. Coastal Wishbone Plant

Scrophulariaceae - Figwort Family

Mimulus aurantiacus Curtis var. *puniceus* (Nutt.) Thomp. Coast Monkeyflower

Plantaginaceae - Plantain Family

Antirrhinum nuttallianum Benth. ssp. *nuttallianum* Nuttall's Snapdragon

Polygonaceae - Buckwheat Family

Eriogonum fasciculatum Benth. var. *fasciculatum* California Buckwheat

Rhamnaceae - Buckthorn Family

Rhamnus crocea Torr. & Gray Spiny Redberry

Rosaceae - Rose Family

Heteromeles arbutifolia (Ait.) M. Roem. Toyon

Solanaceae - Nightshade Family

Datura wrightii Regel Western Jimsonweed

* *Nicotiana glauca* Graham Tree Tobacco

MONOCOTYLEDONS**Poaceae** - Grass Family

* *Avena* sp. Wild Oat

* *Bromus diandrus* Roth Ripgut Grass

* *Bromus hordeaceus* L. Soft Chess

* *Bromus madritensis* L. ssp. *rubens* (L.) Husnot Red Brome

Leymus condensatus (Presl) A. Love Giant Wild Rye

Nassella lepida (A.S. Hitchcock) Barkworth Foothill Needlegrass

* *Schismus barbatus* (L.) Thell. Mediterranean Schismus

* *Vulpia myuros* (L.) Gmelin var. *hirsuta* (Hackett) Asch & Graetoner Foxtail Fescue

* - Denotes non-native plant taxa

APPENDIX 2. ANIMALS OBSERVED OR DETECTED**INVERTEBRATES****ORTHOPTERA****Acrididae** - Grasshoppers

Pallid Bandwing Grasshopper

*Trimerotropis pallidipennis***Gryllidae** - Crickets

Tree Cricket

Oecanthus sp.

Field Cricket

Gryllus sp.**LEPIDOPTERA – BUTTERFLIES AND MOTHS****Pieridae** (Whites & Sulphurs)

Cabbage White

Pieris rapae

Checkered White

*Pontia protodice***HYMENOPTERA – ANTS, BEES, AND WASPS****Apidae** (True Bees)

European Honeybee

*Apis mellifera***REPTILES****Phrynosomatidae** (Spiny Lizards)

Western Fence Lizard

*Sceloporus occidentalis***BIRDS****Cathartidae** (New World Vultures)

Turkey Vulture

*Cathartes aura***Accipitridae** (Hawks, Eagles, Harriers, Kites)

Red-tailed Hawk

*Buteo jamaicensis***Columbidae** (Pigeons and Doves)

Mourning Dove

*Zenaida macroura***Corvidae** (Jays, Crows, Ravens, Magpies)

Western Scrub-Jay

Aphelocoma californica

American Crow

*Corvus brachyrhynchos***Aegithalidae** (Bushtits)

Bushtit

*Psaltiriparus minimus***Timaliidae** (Wrentits)

Wrentit

*Chamaea fasciata***Mimidae** (Mockingbirds and Thrashers)

Northern Mockingbird

Mimus polyglottos

California Thrasher

*Toxostoma redivivum***Emberizidae** (Towhees and Sparrows)

California Towhee

Pipilo crissalis

APPENDIX 2. ANIMALS OBSERVED OR DETECTED (CONTINUED)**Icteridae** (Blackbirds, Meadowlarks, and Orioles)

Hooded Oriole

*Icterus cucullatus***Fringillidae** (Finches)

House Finch

Carpodacus mexicanus

Lesser Goldfinch

*Carduelis psaltria***MAMMALS****Sciuridae** (Squirrels, Chipmunks, and Marmots)

California Ground Squirrel

*Spermophilus beecheyi***Geomyidae** (Pocket Gophers)

Botta's Pocket Gopher

Thomomys bottae (excavations)

ATTACHMENT 3. LEAST BELL'S VIREO SURVEY



**EMERALD HILL MINOR SUBDIVISION
EMERALD HILL ROAD
BONSALL COMMUNITY PLANNING AREA
SAN DIEGO COUNTY, CALIFORNIA**

LEAST BELL'S VIREO SURVEY

APN: 126-250-23

Case No.: TPM 21057; Environmental Log No.: 07-02-005

UTM: [NAD 83]: 11-S: 477,913mE; 3,681,858mN

Prepared for:
County of San Diego

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PSBS #U940

3 August 2007

R. Mitchel Beauchamp, M. Sc., President,
Certified Biologist, County of San Diego

**EMERALD HILL MINOR SUBDIVISION
EMERALD HILL ROAD
BONSALL COMMUNITY PLANNING AREA
SAN DIEGO COUNTY, CALIFORNIA**

LEAST BELL'S VIREO SURVEY

3 August 2007

SUMMARY

A presence/absence survey for the Least Bell's Vireo (*Vireo bellii pusillus*; Vireo), following the current federal protocol was conducted on the Emerald Hill Road site located in the unincorporated community of Bonsall, San Diego County, California. The Least Bell's Vireo was not detected. No other sensitive species were observed. During the initial site visit it was determined that suitable habitat for the Southwestern Willow Flycatcher (*Empidonax traillii extimus*) is not present on or near the property, so surveys for this species were not conducted.

INTRODUCTION

PURPOSE OF THE STUDY

Pacific Southwest Biological Services, Inc., (Pacific Southwest), at the request of Mr. Kyle Guerrero of Brian F. Smith and Associates, conducted a focused survey for the Least Bell's Vireo on an approximately 2.95-acre portion of the 31.85-acre site that includes potential habitat for the vireo. The purpose of the survey was to determine the presence/absence status of the Vireo, a species listed as Endangered by the U. S. Fish and Wildlife Service (Service). This report provides the methods and results of the survey.

SITE LOCATION

The site is located in the unincorporated community of Bonsall on the east and west sides of a north-south portion of State Route (SR) 76, between Olive Hill Road and North River Road, in northwestern San Diego County (Figures 1 and 2). The site is situated in the southern ¼ of Section 30, Township 10 South, Range 3 West, of the San Bernardino Base and Meridian, USGS 7.5' Bonsall, California quadrangle, at approximately UTM [NAD 83]: 11-S: 477,913mE; 3,681,858mN. The majority of the site is situated west of Highway 76, but a small portion is situated to the east of this road. The survey area was accessed from the dirt shoulder pullout for Callbox 76-106 along Highway 76.

PROJECT DESCRIPTION

The proposed project consists of a minor subdivision of the 31.85-acre ownership into four residential parcels ranging in size from 2.21 to 3.11 net acres and one 12.97 acre (net) Designated Remainder Parcel.

SURVEY METHODS

Prior to the fieldwork, a report of recent surveys for sensitive riparian birds along the San Luis Rey River was reviewed (Peterson *et al.* 2002). Because of the advanced starting date of the survey, late in terms of survey protocol, Pacific Southwest secured permission from the Service Carlsbad office staff to modify Service protocol, so that survey visits to the site were made at one-week intervals, rather than the 10-day interval normally prescribed. The Service reserves the right to determine whether results of the survey, if negative, would be accepted.

Biologist Claude G. Edwards (TE-814215-4, expires 21 June 2009) performed the Vireo surveys. Field methods consisted of walking slowly through appropriate habitat while watching and listening for the Vireo. During the initial site visit it was determined that suitable habitat for the Southwestern Willow Flycatcher, a species listed as Endangered by the Service, is not present on or near the property, so surveys for this species were not conducted concurrently with the Vireo survey. "Pishing," a technique commonly used to elicit response of passerines and draw them into view, was occasionally employed. Binoculars (8x32) were used to assist in the visual identification of wildlife.

In addition to the limited amount of riparian vegetation within the site boundaries, terrain and vegetation eastward as far as the San Luis Rey River channel was also investigated for the presence of the Vireo. Although Mr. Edwards did not cross the river, the survey included listening for any Vireos within earshot that may have been in the habitat on the east side, bordered by Old River Road. The survey area was of such extent that it could be covered in a single visit. The schedule and conditions during the field visits are summarized below.

Table 1. Survey Dates, Time and Field Conditions

DATE	TIME	CONDITIONS
31 May 2007	0945-1045 hours	Start: Overcast, 100% clouds; calm winds; 66°F. End: Overcast, 100% clouds; calm winds, 70°F.
7 June 2007	0730-0900 hours	Start: Clear; calm winds; 66°F. End: Clear; calm winds; 68°F.
14 June 2007	0920-1135 hours	Start: Overcast; calm winds; 66°F. End: Clear; light westerly winds; 74°F.
21 June 2007	0900-1015 hours	Start: Hazy-sun; calm winds; 64°F. End: Hazy-sun; light westerly winds; 78°F.
28 June 2007	0900-1000 hours	Start: Partly-cloudy; light westerly winds; 65°F. End: Clear; light westerly winds; 74°F.
5 July 2007	0830-1100 hours	Start: Overcast; calm winds; 73°F. End: Partly-cloudy; light westerly winds; 78°F.
12 June 2007	0800-0915 hours	Start: Overcast; moderate W winds; 70°F. End: Partly-cloudy; light westerly winds; 76°F.
19 June 2007	0840-0940 hours	Start: Clear; light westerly winds; 70°F. End: Clear; light westerly winds; 74°F.

DEFINITIONS

Vegetation Communities

The classification of vegetation communities is based upon the life form of the dominant species within the community and the associated flora. Nomenclature for vegetation communities follows Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986), as modified by Oberbauer (2005).

Species Nomenclature

The scientific nomenclature used in this report is from the following standard references: vascular plants (Beauchamp 1986, Hickman 1993 and Rebnan 2006); vegetation communities (Holland 1986, Oberbauer 2005); invertebrates (Hogue 1993, Emerton 1961); (birds (American Ornithologists' Union 1998 and 2006); and mammals (Jameson and Peeters 1988).

SURVEY RESULTS

GENERAL PHYSIOGRAPHY

The survey area is situated within the San Luis Rey River floodplain to the east of a north-south section of SR 76. The northeast corner of the eastern portion of the site is indicated by a flagged stake beneath a large Fremont Cottonwood (*Populus fremontii*) tree at approximately N 33.27452° and W 117.23499°. The southeast corner of the eastern portion of the site is indicated by a flagged stake situated within riparian vegetation at approximately N 33.27452°, W 117.23499°. Elevations within the survey area range from approximately 143 feet above mean sea level along SR 76 at its northern boundary, to approximately 135 feet, along the San Luis Rey River east of the southern boundary of the site.

Surrounding land uses include riparian woodland vegetation to the south, east and northeast, commercial businesses and Non-Native Grassland to the north, and Diegan Coastal Sage Scrub, Non-Native Grassland and Orchards on slopes across SR 76 to the west.

BOTANICAL RESOURCES

Vegetation Communities

The Vireo survey was performed within Southern Cottonwood Willow Riparian Forest habitat occurring along the San Luis Rey River floodplain.

Southern Cottonwood Willow Riparian Forest (Holland Code #61330)

Southern Cottonwood Willow Riparian Forest is a winter-deciduous riparian forest characterized by the presence of Fremont Cottonwood and one or more species of willows (*Salix* spp.), often with an understory of shrubby plants. Other large trees, such as Coast Live Oak (*Quercus agrifolia*) and Western Sycamore (*Platanus racemosa*), may also be present.

Approximately 2.83 acres of Southern Cottonwood Willow Riparian Forest occurs on the property. The survey covered additional Southern Cottonwood Willow Riparian Forest eastward to the river channel. During the survey, the width of the surface water of the river was approximately 10-15 feet in width and 2-4 feet deep. The terrain within the floodplain drops

slightly from west to east, with low-relief ridges and swales oriented northeast-to-southwest parallel with the river.

The riparian habitat within the Vireo survey area consists of medium-to-large trees including Fremont Cottonwood, Arroyo Willow (*Salix lasiolepis*) and Goodding's Black Willow (*S. gooddingii*), and medium-to-large shrubs such as Blue Elderberry (*Sambucus mexicanus*), Mugwort (*Artemisia douglasiana*), Mule-fat (*Baccharis salicifolia*), and Poison-Oak (*Toxicodendron diversilobum*), and a variety of annual and perennial herbaceous plants. Giant Reed (*Arundo donax*), a large and invasive, bamboo-like grass, occurs extensively in scattered patches throughout the floodplain, on both sides of the river channel. Several narrow dirt trails traverse the floodplain on the west side of the river, used for access during the surveys.

Flora

A total of 76 plant taxa were recorded during the Vireo surveys, of which 33 species (43% percent) are non-native. A complete list is provided in Appendix 1.

ZOOLOGICAL RESOURCES

Fauna

A total of 65 wildlife species was recorded during the surveys: 16 invertebrates, one reptile, 45 species of birds, and three mammals. A complete list is provided in Appendix 2. **The Least Bell's Vireo was not detected during the surveys.**

Sensitive Fauna

No sensitive plant or wildlife species were recorded.

DISCUSSION

To enhance the potential for detecting the Vireo on the site survey and adjacent to the site, survey efforts extended eastward to the San Luis Rey River channel, and up to approximately 150 feet beyond the north and south site boundary lines, to the northeast and southwest along the west side of the river.

The quality of the riparian habitat surveyed has been greatly diminished by activity associated with the removal of Giant Reed, and related efforts applied towards the restoration of native riparian vegetation along the river. This activity was initiated prior to the survey (not associated with the proposed project), consisting of cutting and processing the plants through a chipper/shredder placed within the floodplain, and spreading the plant material over the ground within the riparian vegetation, including the on-site portion of the survey area.

This activity continued periodically during the duration of the survey visits, consisting of chemical treatment of re-sprouting Giant Reed, as well as a variety of other non-native, weedy plants, such as Poison Hemlock (*Conium maculatum*), Italian Thistle (*Carduus pycnocephalus*), Short-pod Mustard (*Hirschfeldia incana*), and Dwarf Nettle (*Urtica urens*).

It is likely that such activity discouraged the presence of the Vireo in the vicinity. In addition, these activities have created large openings in the riparian vegetation, on both sides of

the river, degrading the habitat and largely eliminating the potential for occurrence of the Vireo on and near the property.

The presence of the Brown-headed Cowbird (*Molothrus ater*) was noted during the Vireo surveys. The Brown-headed Cowbirds is a “nest parasite” that lays its eggs in other birds’ nests. As a result, these species raise the young Brown-headed Cowbirds instead of their own young. The presence of the Brown-headed Cowbird in riparian habitat is another negative factor in the presence of the Vireo.

The Vireo survey area and surrounding terrain and vegetation would not be disturbed by implementation of the proposed project.

CERTIFICATION

I hereby certify that the statements furnished above and in attached exhibits present the data and information required by the Service protocol for a presence/absence survey for the Least Bell's Vireo (*Vireo bellii pusillus*) and that the facts, statements, and information presented here are true and correct to the best of my knowledge and belief.

DATE: _____

SIGNED: _____
Claude G. Edwards, Biologist

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APPENDIX 1. FLORAL CHECKLIST OF SPECIES OBSERVED – EMERALD HILL ROAD SITE

DICOTYLEDONS

Adoxaceae – Adoxus Family

Sambucus mexicana DC. Blue Elderberry

Amaranthaceae - Amaranthus Family

- * *Chenopodium album* L. Lamb's Quarters
- * *Chenopodium ambrosioides* L. Mexican Tea
- Chenopodium californicum* (Wats.) Wats. California Goosefoot
- * *Chenopodium murale* L. Nettle-leaf Goosefoot
- * *Salsola tragus* L. Russian Thistle

Anacardiaceae - Sumac Family

Malosma laurina (Torr. & Gray) Abrams Laurel Sumac
Toxicodendron diversilobum (Torr. & A.Gray) E. Greene Poison-Oak

Apiaceae - Carrot Family

- * *Conium maculatum* L. Common Poison Hemlock
- * *Foeniculum vulgare* Mill. Fennel

Asteraceae - Sunflower Family

- Ambrosia acanthicarpa* Hook. Annual Bur-Sage
Ambrosia psilostachya DC. Western Ragweed
Artemisia californica Less. California Sagebrush
Artemisia douglasiana Besser Mugwort
Baccharis pilularis DC. Coyote Brush
Baccharis salicifolia (R. Lopez & Pavon) Pers. Mule-Fat
- * *Carduus pycnocephalus* L. Italian Thistle
 - * *Centaurea melitensis* L. Tocalote
 - * *Conyza bonariensis* (L.) Cronq. Flax-leaf Fleabane
 - * *Conyza canadensis* (L.) Cronq. Horseweed
 - Gnaphalium californicum* DC. California Everlasting
 - Heterotheca grandiflora* Nutt. Telegraph Weed
 - Isocoma menziesii* (Hook. & Arn.) Nesom var. *vernonioides* (Nutt.) Nesom Coast Goldenbush
 - * *Lactuca serriola* L. Prickly Lettuce
 - * *Picris echioides* L. Bristly Ox-tongue
 - * *Sonchus asper* (L.) Hill Prickly Sow Thistle
 - * *Sonchus oleraceus* L. Common Sow Thistle
 - Stephanomeria virgata* Benth. Virgate Wreath-plant

Brassicaceae - Mustard Family

- * *Brassica nigra* (L.) Koch Black Mustard
- * *Hirschfeldia incana* (L.) Lagr.-Fossat Short-pod Mustard
- * *Raphanus sativus* L. Wild Radish
- * *Sisymbrium altissimum* L. Tumble Mustard
- * *Sisymbrium irio* L. London Rocket

Cactaceae - Cactus Family

Opuntia littoralis (Engelm.) Ckll. var. *littoralis* Coast Prickly-Pear

Cucurbitaceae - Gourd Family

Cucurbita foetidissima Kunth Calabazilla
Marah macrocarpus (Greene) Greene var. *macrocarpus* Wild-Cucumber

APPENDIX 1. FLORAL CHECKLIST OF SPECIES OBSERVED – EMERALD HILL ROAD SITE (CONTINUED)

Euphorbiaceae - Spurge Family

Euphorbia crenulata Engelm. Chinese Caps

- * *Ricinus communis* L. Castor-Bean

Fabaceae - Legume Family

Amorpha fruticosa L. False Indigo

Lotus scoparius (Nutt.) Ottley var. *scoparius* Coast Deerweed

- * *Melilotus alba* Desr. White Sweetclover

Hydrophyllaceae - Waterleaf Family

Phacelia cicutaria Greene var. *hispida* (Gray) Howell Caterpillar Phacelia

Phacelia ramosissima Lehm. var. *latifolia* (Torr.) Cronq. Branching Phacelia

Lamiaceae - Mint Family

- * *Marrubium vulgare* L. Horehound

Salvia apiana Jeps. White Sage

Salvia mellifera Greene Black Sage

Nyctaginaceae - Four-O'Clock Family

Mirabilis laevis (Benth.) Curran var. *crassifolia* (Choisy) Spellenb. Coastal Wishbone Plant

Onagraceae - Evening-Primrose Family

Oenothera elata Kunth ssp. *hirsutissima* (Watson) Dietrich Great Marsh Evening-Primrose

Phrymaceae - Hopseed Family

Mimulus aurantiacus Curtis var. *puniceus* (Nutt.) Thompson Coast Monkeyflower

Platanaceae - Sycamore Family

Platanus racemosa Nutt. Western Sycamore

Polygonaceae - Buckwheat Family

Eriogonum fasciculatum Benth. var. *fasciculatum* Coastal California Buckwheat

Rosaceae - Rose Family

Rubus ursinus Cham. & Schlecht. California Blackberry

Salicaceae - Willow Family

Populus fremontii Wats. ssp. *fremontii* Fremont Cottonwood

Salix exigua Nutt. Narrow-leaf Willow

Salix gooddingii Ball Goodding's Black Willow

Salix lasiolepis Benth. Arroyo Willow

Saururaceae - Lizard-tail Family

Anemopsis californica Hook. Yerba Mansa

Solanaceae - Nightshade Family

Datura wrightii Regel Western Jimsonweed

- * *Nicotiana glauca* Graham Tree Tobacco

Solanum sp. Nightshade

Tamaricaceae - Tamarisk Family

- * *Tamarix* sp. Tamarisk

APPENDIX 1. FLORAL CHECKLIST OF SPECIES OBSERVED – EMERALD HILL ROAD SITE (CONTINUED)

Urticaceae - Nettle Family

Urtica dioica L. ssp. *holosericea* (Nutt.) Thorne Hoary Nettle

* *Urtica urens* L. Dwarf Nettle

Vitaceae - Grape Family

Vitis girdiana Munson Desert Wild Grape

MONOCOTYLEDONS

Cyperaceae - Sedge Family

Cyperus eragrostis Lam. Tall Flatsedge

Eleocharis sp. Spike-sedge

Schoenoplectus americanus Pers. Olney's Bulrush

Poaceae - Grass Family

* *Arundo donax* L. Giant Reed

* *Avena* sp. Wild Oat

* *Bromus diandrus* Roth Rippgut Grass

* *Bromus hordeaceus* L. Soft Chess

* *Bromus madritensis* L. ssp. *rubens* (L.) Husnot Red Brome

Leymus condensatus (Presl) A. Love Giant Wild Rye

* *Schismus barbatus* (L.) Thell. Mediterranean Schismus

* *Vulpia myuros* (L.) Gmelin Foxtail Fescue

Typhaceae - Cattail Family

Typha latifolia L. Broad-leaf Cattail

* - Denotes non-native plant taxa

APPENDIX 2. ANIMALS OBSERVED OR DETECTED – EMERALD HILL ROAD SITE

COMMON NAME	SCIENTIFIC NAME
<u>INVERTEBRATES</u>	
ORTHOPTERA (Grasshoppers, etc.)	
Acrididae (Typical Grasshoppers) Pallid Bandwing Grasshopper	<i>Trimerotropis pallidipennis</i>
Gryllidae (True Crickets) Field Cricket	<i>Gryllus</i> sp.
Cicadidae (Cicadas) Vanduzee's Cicada	<i>Okanagana vanduzeei</i>
<u>NEUROPTERA</u> (Lacewings and relatives)	
Myrmeliontidae (Ant Lions) Ant Lion	<i>Brachynemurus</i> sp.
LEPIDOPTERA (Butterflies and Moths)	
Pieridae (White and Sulphurs) Cabbage White Common White Orange Sulfur	<i>Pieris rapae</i> <i>Pontia protodice</i> <i>Colias eurytheme</i>
Papilionidae (Swallowtails) Western Tiger Swallowtail	<i>Papilio rutulus</i>
Nymphalidae (Brushfoot Butterflies) Common Buckeye Lorquin's Admiral	<i>Junonia coenia</i> <i>Limenitis lorquini</i>
Lycaenidae (Gossamer Wings) Sylvan Hairstreak	<i>Satyrrium sylvinus</i>
DIPTERA (Gnats and Flies)	
Muscidae (Muscid Flies) Flesh Fly Muscid Fly	<i>Parasarcophaga</i> sp. <i>Musca</i> sp.
HYMENOPTERA (Ants, Wasps, and Bees)	
Formicidae (True Ants) Harvester Ant	<i>Pogonomyrmex</i> sp.
Apidae (True Bees) European Honeybee	<i>Apis mellifera</i>

APPENDIX 2. ANIMALS OBSERVED OR DETECTED – EMERALD HILL ROAD SITE (CONTINUED)

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>
ARACHNIDA (Spiders)	
Agelenidae (Grass Spiders) Funnel-web Spider	<i>Agelenopsis aperta</i>
<u>VERTEBRATES</u>	
REPTILES	
Phrynosomatidae (Spiny Lizards) Western Fence Lizard	<i>Sceloporus occidentalis</i>
BIRDS	
Cathartidae (New World Vultures) Turkey Vulture	<i>Cathartes aura</i>
Ardeidae (Herons and Egrets) Snowy Egret	<i>Egretta thula</i>
Accipitridae (Hawks) Red-shouldered Hawk Red-tailed Hawk	<i>Buteo lineatus</i> <i>Buteo jamaicensis</i>
Columbidae (Pigeons and Doves) Mourning Dove	<i>Zenaida macroura</i>
Tytonidae (Barn-Owls) Common Barn-Owl	<i>Tyto alba</i>
Colubridae (Hummingbirds) Black-chinned Hummingbird Anna's Hummingbird Rufous/Allen's Hummingbird	<i>Archilochus alexandri</i> <i>Calypte anna</i> <i>Selasphorus</i> sp.
Picidae (Woodpeckers) Nuttall's Woodpecker Downy Woodpecker	<i>Picoides nuttallii</i> <i>Picoides pubescens</i>
Tyrannidae (Tyrant Flycatchers) Western Wood-Pewee Pacific-slope Flycatcher Black Phoebe Ash-throated Flycatcher	<i>Conotopus sordidulus</i> <i>Empidonax difficilis</i> <i>Sayornis nigricans</i> <i>Myiarchus cinerascens</i>
Vireonidae (Vireos) Warbling Vireo Hutton's Vireo	<i>Vireo gilvus</i> <i>Vireo huttoni</i>
Corvidae (Jays, Crows and Ravens) Western Scrub-Jay American Crow Common Raven	<i>Apelocoma californica</i> <i>Corvus brachyrhynchos</i> <i>Corvus corax</i>

APPENDIX 2. ANIMALS OBSERVED OR DETECTED – EMERALD HILL ROAD SITE (CONTINUED)

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>
Hirundinidae (Swallows) Northern Rough-winged Swallow Cliff Swallow	<i>Stelgidopteryx serripennis</i> <i>Petrochelidon pyrrhonota</i>
Paridae (Chickadees and Titmice) Oak Titmouse	<i>Baeolophus inornatus</i>
Aegithalidae (Long-tailed Tits) Bushtit	<i>Psaltiriparus minimus</i>
Troglodytidae (Wrens) Bewick's Wren House Wren	<i>Thryomanes bewickii</i> <i>Troglodytes aedon</i>
Timaliidae (Babblers) Wrentit	<i>Chamaea fasciata</i>
Mimidae (Mockingbirds and Thrashers) Northern Mockingbird California Thrasher	<i>Mimus polyglottos</i> <i>Toxostoma redivivum</i>
Sturnidae (Starlings) European Starling	<i>Sturnus vulgaris</i>
Ptilogonatidae (Silky-Flycatchers) Phainopepla	<i>Phainopepla nitens</i>
Parulidae (Wood Warblers) Orange-crowned Warbler Northern Parula Yellow Warbler Common Yellowthroat Yellow-breasted Chat	<i>Vermivora celata</i> <i>Parula americana</i> <i>Dendroica petechia</i> <i>Geothlypis trichas</i> <i>Icteria virens</i>
Emberizidae (Towhees and Sparrows) Spotted Towhee California Towhee Song Sparrow	<i>Pipilo maculatus</i> <i>Pipilo crissalis</i> <i>Melospiza melodia</i>
Cardinalidae (Grosbeaks and Buntings) Black-headed Grosbeak Blue Grosbeak Lazuli Bunting	<i>Pheucticus melanocephalus</i> <i>Passerina caerulea</i> <i>Passerina amoena</i>
Icteridae (Blackbirds and Orioles) Brown-headed Cowbird Hooded Oriole	<i>Molothrus ater</i> <i>Icterus cucullatus</i>
Fringillidae (Finches) House Finch Lesser Goldfinch American Goldfinch	<i>Carpodacus mexicanus</i> <i>Carduelis psaltria</i> <i>Carduelis tristis</i>

APPENDIX 2. ANIMALS OBSERVED OR DETECTED – EMERALD HILL ROAD SITE (CONTINUED)

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>
MAMMALS	
Leporidae (Rabbits and Hares) Audubon's Cottontail	<i>Sylvilagus auduboni</i>
Sciuridae (Squirrels, Chipmunks, and Marmots) California Ground Squirrel	<i>Spermophilus beecheyi</i>
Geomyidae (Pocket Gophers) Botta's Pocket Gopher	<i>Thomomys bottae</i>

ATTACHMENT A. SITE PHOTOGRAPHS

EMERALD HILL SITE PHOTOGRAPHS



Photo #1. Terrain and vegetation looking west from recently established riparian plants in the foreground to sage scrub and orchard on the slope above State Route 76.



Photo #2. Another view of terrain and vegetation looking west from annual grassland in the foreground to disturbed sage scrub and orchard on the slope past State Route 76.

EMERALD HILL
SITE PHOTOGRAPHS



Photo #3. Diegan Coastal Sage Scrub on the slope west of the State Route 76.



Photo #4. Southern Cottonwood-willow Riparian Forest and Diegan Coastal Sage Scrub east of State Route 76. Two white PVC stakes mark the site's south boundary line.

EMERALD HILL SITE PHOTOGRAPHS



Photo #5. Recently established riparian plants in an area within the San Luis Rey River floodplain where Giant Cane (*Arundo donax*) was removed, looking north.



Photo #6. Orchard and potted palm trees in the western portion of the site, looking southeast.